UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
CARIBBEAN ENVIRONMENTAL PROTECTION DIVISION
CITY VIEW PLAZA, SUITE 7000
#48 165 RD. KM 1.2
GUAYNABO, PR 00968-8069

AUG 3 1 2012

CERTIFIED MAIL - RETURN RECEIPT REQUESTED
Article Number: 7011 0470 0000 5040 0829

Mrs. Irma López, Acting Director
Compliance and Quality Control
Puerto Rico Aqueduct and Sewer Authority
P.O. Box 7066
San Juan PR 00916-9990

Honorable Jorge A. Santini-Padilla, Mayor
Municipality of San Juan
P.O. Box 9024100
San Juan, Puerto Rico 00902-4100

Re: Reconnaissance Inspection, April 23 and 25, 2012
Portions of the Quebrada San Antón, Quebrada Juan Méndez, Río Piedras River, Puerto Nuevo Canal, Quebrada Doña Ana watersheds
Municipality of San Juan ("MSJ") Municipal Separate Storm Sewer System ("MS4") Permit (PRR040036)
PRASA Puerto Nuevo Wastewater Treatment Plant Collection System (PR0021555)
Puerto Rico Department of Transportation and Public Works (DTOP) MS4 Permit PRR040080

Dear Mrs. López and Mayor Santini,

This letter is in reference to the National Pollutant Discharge Elimination System ("NPDES") Reconnaissance Inspection ("RI") conducted by the United States Environmental Protection Agency's ("EPA") Region 2, Water Compliance Branch and Caribbean Environmental Protection Division on April 23 and 25, 2012. This report indicates that certain potential non-compliance items and/or areas of concern which must be corrected and/or investigated to ensure compliance with your respective NPDES Permits.

Within forty five (45) days of receipt of this letter, respond to EPA-CEPD in writing with the actions that MSJ, PRASA, and DTOP has taken or will take to address the non-compliance items and areas of concern identified in the report. MSJ, PRASA and/or DTOP must add these items to its Action Registry, and work to correct these items in an expeditious manner. However, if these items require extensive repairs and/or capital investments, than the work shall be scheduled in consideration of other priorities and the schedule included on the Action Registry.

Also, send a copy of your response to Doughlas McKenna, Chief Water Compliance Branch, EPA Region 2, 290 Broadway, NY, NY 10007 and to Wanda E. García Hernández, Director, Water Quality Area, EQB, Puerto Rico Environmental Quality Board, P.O. Box 11488, Santurce, Puerto Rico 00910.

If you have any questions please feel free to contact me at 787-977-5840.

Sincerely,

Jaime Géliga
Chief
Municipal Water Programs Branch

Enclosure

cc: Wanda E. García Hernández, Director, Water Quality Area, PREQB
Eng. Maria Matos, Municipality of San Juan, Environmental Affairs Program
Eng. Hans Figueroa, Consultant for the PRDNER
Eng. Carmen G. Alicia PRDTOP

bcc: Barbara McGarry, USEPA - CAPS
M. Lantner, DECA-WCB w/enclosure
Eduardo J. Gonzalez, EPA-ORC electronically via email
Kim Kramer, EPA-ORC electronically via email
Diane Gomes, EPA-ORC electronically via email
Susan Bruce, EPA-HQ electronically via email
Alan Morrissey, EPA-HQ electronically via email
Ellie Codding, ERG, electronically via email
Keith Tashima, USDOJ, ENRD-EES electronically via email
Patricia McKenna USDOJ, ENRD-EES electronically via email
Rachel K. Evans, USDOJ, ENRD-EES electronically via email

EPA

United States Environmental Protection Agency Washington, D.C. 20460
Water Compliance Inspection Report Form Approved.
OMB No. 2040-0057
Approval expires 8-31-98

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NPDES	yr/mo/day	Inspection Type	Inspector	Fac Type
1 N 2	3 PRR040036 11	12 120423 17	18	19	R201

Remarks: 21 ____ 66

Inspection Work Days	Facility Self-Monitoring Evaluation Rating	BI	QA	Reserved
67 2 69	70 U	71	72	73747580

Section B: Facility Data

Name and Location of Facility Inspected *(for industrial users discharging to POTW, also include POTW name and NPDES permit number)*

Municipality of San Juan MS4 (Quebrada San Antón, Quebrada Juan Méndez, Río Piedras River, Puerto Nuevo Canal, Quebrada Doña Ana)
P.O. Box 9024100
San Juan, Puerto Rico 00902-4100

Entry Time/Date: Permit Effective Date
April 23, 2012

Exit Time/Date: Permit Expiration Date
April 25, 2012 | 11/30/10

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)

Not Contacted - San Juan MS4 Eng. Maria Matos:
MMATOS01@SanJuanCapital.com
Executive Director Tel. No. (787) 480-2253
Environmental Affairs Program

Name, Address of Responsible Official/Title/Phone and Fax Number(s)

Honorable Jorge Santini, Mayor
Autonomous Municipality of San Juan
P.O. Box 9024100
San Juan, Puerto Rico 00902-4100

Contacted: Yes | x No

Other Facility Data

Jose F. Ortiz Velazquez, Executive President, Puerto Rico Aqueduct and Sewer Authority (PRASA) Puerto Nuevo Regional WWTP, P.O. Box 7066, Barrio Obrero Station, Santurce, Puerto Rico 00916
NPDES Permit No. PR0021555

Section C: Areas Evaluated During Inspection *(Check only those areas evaluated)*

	Permit		Flow Measurement		Operations & Maintenance CSO/SSO (Sewer Overflow)
	Records/Reports		Self-Monitoring Program		Sludge Handling/Disposal Pollution Prevention
x	Facility Site Review		Compliance Schedules		Pretreatment Multimedia
x	Effluent/Receiving Water		Laboratory	x	Storm Water

Section D: Summary of Findings/Comments *(Attach additional sheets of narrative and checklists as necessary)*

Roberto Martinez – PRASA Metro Region, San Juan Operations Supervisor – 787-406-6413

See Enclosed Report
Not Contacted - PRDTOP Contact Eng. Carmen G. Alicea (787) 721-8787,
Mailing Address
PR Dept. of Transportation and Public Works, P.O. Box 41269, San Juan PR 00940-1269
SEV Code A0020 WW SSO - Discharge to Waters

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Murray Lantner, P.E. Environmental Engineer	EPA Region 2 WCB/(212) 637-3976/ FAX: 637-4211	8/16/12
Alex Rivera, Env. Eng. CEPD	EPA-CEPD - 787-977-5845	8/30/12
Signature of Management Q A Reviewer	Agency/Office/Phone and Fax Numbers	Date
Jaime Géliga, Chief, CEPD-MWPB	EPA Region 2, CEPD MWPB 787-977-5840 (ph)	8/30/12

INSTRUCTIONS

Section A: National Data System Coding *(i.e., PCS)*

Column 1: Transaction Code: Use N, C, or D for New, Change, or Delete. All inspections will be *new* unless there is an error in the data entered.

Columns 3-11: NPDES Permit No. Enter the facility's NPDES permit number - third character in permit number indicates permit type for U=unpermitted, G=general permit, etc.. *(Use the Remarks columns to record the State permit number, if necessary.)*

Columns 12-17: Inspection Date. Insert the date entry was made into the facility. Use the year/month/day format (e.g., 04/10/01 = October 01, 2004).

Column 18: Inspection Type*. Use one of the codes listed below to describe the type of inspection:

- A Performance Audit
- B Compliance Biomonitoring
- C Compliance Evaluation (non-sampling)
- D Diagnostic
- F Pretreatment (Follow-up)
- G Pretreatment (Audit)
- I Industrial User (IU) Inspection
- J Complaints
- M Multimedia
- N Spill
- O Compliance Evaluation (Oversight)
- P Pretreatment Compliance Inspection
- R Reconnaissance
- S Compliance Sampling
- U IU Inspection with Pretreatment Audit
- X Toxics Inspection
- Z Sludge - Biosolids
- # Combined Sewer Overflow-Sampling
- $ Combined Sewer Overflow-Non-Sampling
- + Sanitary Sewer Overflow-Sampling
- & Sanitary Sewer Overflow-Non-Sampling
- \ CAFO-Sampling
- = CAFO-Non-Sampling
- 2 IU Sampling Inspection
- 3 IU Non-Sampling Inspection
- 4 IU Toxics Inspection
- 5 IU Sampling Inspection with Pretreatment
- 6 IU Non-Sampling Inspection with Pretreatment
- 7 IU Toxics with Pretreatment
- ! Pretreatment Compliance (Oversight)
- @ Follow-up (enforcement)
- [Storm Water-Construction-Sampling
-] Storm Water-Construction-Non-Sampling
- : Storm Water-Non-Construction-Sampling
- ~ Storm Water-Non-Construction-Non-Sampling
- < Storm Water-MS4-Sampling
- - Storm Water-MS4-Non-Sampling
- > Storm Water-MS4-Audit

Column 19: Inspector Code. Use one of the codes listed below to describe the *lead agency* in the inspection.

- A — State (Contractor)
- B — EPA (Contractor)
- E — Corps of Engineers
- J — Joint EPA/State Inspectors—EPA Lead
- L — Local Health Department (State)
- N — NEIC Inspectors
- O — Other Inspectors, Federal/EPA (Specify in Remarks columns)
- P — Other Inspectors, State (Specify in Remarks columns)
- R — EPA Regional Inspector
- S — State Inspector
- T — Joint State/EPA Inspectors—State lead

Column 20: Facility Type. Use one of the codes below to describe the facility.

1 — Municipal. Publicly Owned Treatment Works (POTWs) with 1987 Standard Industrial Code (SIC) 4952.

2 — Industrial. Other than municipal, agricultural, and Federal facilities.

3 — Agricultural. Facilities classified with 1987 SIC 0111 to 0971.

4 — Federal. Facilities identified as Federal by the EPA Regional Office.

5 — Oil & Gas. Facilities classified with 1987 SIC 1311 to 1389.

Columns 21-66: Remarks. These columns are reserved for remarks at the discretion of the Region.

Columns 67-69: Inspection Work Days. Estimate the total work effort (to the nearest 0.1 work day), up to 99.9 days, that were used to complete the inspection and submit a QA reviewed report of findings. This estimate includes the accumulative effort of all participating inspectors; any effort for laboratory analyses, testing, and remote sensing; and the billed payroll time for travel and pre and post inspection preparation. This estimate does not require detailed documentation.

Column 70: Facility Evaluation Rating. Use information gathered during the inspection (regardless of inspection type) to evaluate the quality of the facility self-monitoring program. Grade the program using a scale of 1 to 5 with a score of 5 being used for very reliable self-monitoring programs, 3 being satisfactory, and 1 being used for very unreliable programs.

Column 71: Biomonitoring Information. Enter D for static testing. Enter F for flow through testing. Enter N for no biomonitoring.

Column 72: Quality Assurance Data Inspection. Enter Q if the inspection was conducted as followup on quality assurance sample results. Enter N otherwise.

Columns 73-80: These columns are reserved for regionally defined information.

Section B: Facility Data

This section is self-explanatory except for "Other Facility Data," which may include new information not in the permit or PCS (e.g., new outfalls, names of receiving waters, new ownership, other updates to the record, SIC/NAICS Codes, Latitude/Longitude).

Section C: Areas Evaluated During Inspection

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2, DECA-WCB
20th Floor, 290 Broadway, NY, NY 10007

AND

USEPA Region 2, CEPD-MWPB
CITY VIEW PLAZA II – SUITE 7000
#48 RD. 165 km 1.2
GUAYNABO, PR 00968-8069

Compliance Evaluation Inspection: Municipality of San Juan Municipal Separate Storm Sewer System ("MS4") Permit (PRR040036)

PRASA Puerto Nuevo Wastewater Treatment Plant Collection System (PR0021555)

Puerto Rico Department of Transportation and Public Works (PRR040080).

Inspection Date: April 23 and 25, 2012

Inspectors: Murray Lantner, P.E. Env. Eng. USEPA Region 2, DECA-WCB, (212) 637-3976
Alex Rivera, Env. Eng. EPA Region 2 CEPD-MWPB (787) 977-5845

A. Introduction

On April 23 and 25, 2012 Murray Lantner and Alex Rivera of EPA Region 2 conducted a Reconnaissance Inspection of storm sewers and manholes in the Quebrada San Antón, Quebrada Doña Ana, Río Piedras River, and Canal Puerto Nuevo watersheds. The majority of the points inspected were identified by the Municipality of San Juan's contractor, CSA, in 2009 as part of a flood control study. EPA revisited the points identified below to ascertain their current status and whether dry weather discharges were still occurring.

EPA conducted field screening of grab samples using Hach Ammonia Test Strips Cat. 27553-25 (range from 0-6 mg/l) and pH paper range 4.5 to 10.5 S.U. Note that these are not 40 CFR Part 136 approved methods, but are useful for field screening of outfalls. Ammonia has been used as a screening tool by some MS4s with severe or widespread sewage contamination. An ammonia concentration over 1 mg/l is generally considered to be a positive indicator for sewage contamination. Although some limitations have been identified, such as not detecting diluted sewage or elevated ammonia due to non-target

sources such as irrigation, it does serve as a valuable screening tool (Section 12, P. 132 and 133 of the 2004 IDDE Manual http://cfpub1.epa.gov/npdes/stormwater/idde.cfm). The grab samples were taken using a rope attached to a plastic container to collect the discharge directly from the outfall pipes, without also collecting any receiving water in the sample.

Below is a summary of our findings from the inspection. There was a brief rainfall during the inspection period on April 23, 2012 when the inspectors were at Quebrada San Antón at or about Calle Garcilaso de la Vega and Consuelo Matos, but prior to arriving at Calle Nicolas Aguayo. There was a trace rainfall recorded at the LMMIA rain gauge on April 23, 2012. On April 25, 2012 there was a short, but intense rain storm, when the inspectors were at Ave. Roosevelt (PR-23) and the Canal Puerto Nuevo after the inspectors had recorded dry weather flows from pipes to the southwest and northeast of this location. On April 25, 2012 there was a 0.35" rainfall recorded at the San Juan Luis Muñoz Marín International Airport (Rainfall data for April 2012 included in Attachment 7)

B. QUEBRADA SAN ANTON - POTENTIAL NON-COMPLIANCE OR AREAS OF CONCERN

1. Calle Belén Zequeira and Quebrada San Antón (West Side of Quebrada) – Sabana Llana Country Club
   There was a double barrel round sewer that had a dry weather flow at this location. The outfall on the west side of the Quebrada was covered with vegetation and there was a sewage odor. (Photos DSCN0006 ("6"), 7, and 8 contain photos of this area.) Note that some maps depict this area as part of Carolina (even though it is on the west side of the Quebrada) and others depict this area as part of San Juan. Regardless of the outfall location, it is possible that the collection system for this outfall extends into San Juan. The 2009 CSA Report for this location (see Attachment 2a) shows 2 outfalls at this location, Q15d-S005a and S006a. The CSA report for outfall S006a indicates there that MSJ should verify whether there is a possible connection with the sanitary system at this location.

2. Calle Hernández and Calle Carlos De La Torre (Just north of School)

   As shown in photographs 9 and 10 (Attachment 1) there was a trickle of dry weather flow discharging into the west side of Quebrada San Antón from the outfall. This discharge was identified in the 2009 CSA Report (see Attachments 2b.2 - 2b.4) as R15c-S001a indicates that MSJ should verify whether there is a possible connection with the sanitary system at this location. Maps of the area indicate that this outfall is within the Municipality of San Juan.

3. Calle Ledru and Calle De La Torre

   a. As shown in photograph 11 and 12 (Attachment 1) there was a manhole that was missing a manhole cover. Pallets of wood were placed in and on the manhole, but the missing cover poses a safety risk that should be replaced.

   b. As described in the 2009 CSA Report (see attachments 2b-4 and 2b-5) which indicates that MSJ should verify whether there is a possible connection with the sanitary system at this location, outfall R15c-S003a, at or about Calle Ledru and Calle De La Torre.

4. Calle De La Torre - Q15d-S004a
   While the exact location of this Quebrada Antón discharge was not identified on the CSA Maps, CSA in 2009, as shown in attachment 2b-6 and 7, indicated that MSJ should verify whether there is a possible connection with the sanitary system at this location.

5. Calle Antonio Luciano and Calle Garcilaso De La Vega
   As shown in photograph 20 there was a small dry weather discharge from this outfall at this location into Quebrada San Antón. Some algal growth was seen at this location. The CSA report in Attachment 2c-2 and 2c-3 recommended that the stormsewer system should be checked for possible sanitary connections.

6. Garcilaso de la Vega and Consuelo Matos
   As described in the CSA report attachments 2c-4 and 2c-5 CSA recommended that the stormsewer system should be checked for possible sanitary connections at this location. EPA did not list any findings from this location during this inspection, but MSJ should also inspect this outfall when it follows up on the other Quebrada San Antón discharges.

7. 1232 Nicolas Aguayo (just west of Garcilaso de la Vega), San Juan – Sewage overflow on street.
   As shown in photographs 26 to 33 and 38 to 41 there was sanitary sewage flowing onto the sidewalk near 1232 Nicolas Aguayo (Approx. Location shown on Map 2d-2). There was a sewage odor as well as algal growth in the puddles and vegetation growth in the street located in the flow path. A resident indicated that there had been sewer backups into the house. There was a disconnected house lateral that was flowing onto the sidewalk (see photo 38). The sanitary wastewater and storm water from this location flows across Calle Nicolas Aguayo and was seen entering the Quebrada San Antón. There appeared to be a blockage in the sanitary sewer line since the manhole located just west of 1232 at 1228 and 1229 Nicolas Aguayo was not flowing and appeared obstructed. Another manhole located to the east of the

house (see photo 36 was flowing). PRASA/MSJ, if not already fixed, must eliminate the sewage discharge to the sidewalk and to Quebrada San Antón from this location. The sewer line must be maintained to ensure flow in the sewer.

8. Discharge from sewer into the west side of Quebrada San Antón behind (to the east of 1232 Calle Nicolas Aguayo).
   As shown in photographs 42, 44 and 45 there was a discharge from a sewer pipe located behind/east of 1232 Nicolas Aguayo into the west side of the Quebrada San Antón. There was a significant flow from the outfall and some slight foaming at the discharge. Ammonia screening samples taken by EPA recorded ammonia levels between 0.5 and 1.0 mg/l and a pH of about 6. (Image 43 is a video of this discharge as well). Screening for illicit connections and determining the source of the flow is necessary.

9. Bridge over Quebrada San Antón at Calle Nicolas Aguayo/Calle Lorena
   There was a leak (trickle) from a sanitary sewer line that crosses the Quebrada San Antón along the bridge at Calle Nicolas Aguayo (San Juan)/Calle Lorena (Carolina), a screening sample taken of this trickle had ammonia levels of 6 mg/l. The leaking sanitary sewer line must be repaired.

C. QUEBRADA JUAN MÉNDEZ - POTENTIAL NON COMPLIANCE ITEMS/AREAS OF CONCERN (April 23, 2012)

1. Calle José De Diego (PR-47) – Quebrada Juan Méndez
   There was a strong flow from the outfall located on the west side of the Quebrada Juan Méndez, located west of Calle Lealtad. This discharge was also identified during EPA's February 2012 inspection. See photograph 50. PRASA indicated in its June 14, 2012 letter to EPA in response to the February 2012 inspection that "no visible discharge to the creek/channel was observed at this location. No sewage contribution from PRASA system to stormwater system was observed.

2. Calle Lealtad and Calle José De Diego
   EPA verified that the sanitary sewer overflow that was seen at this location in February 2012 had ceased. However, the catch basin at this location needed to be cleaned (see photographs 52 and 53).

3. Calle Ariel – Quebrada Juan Méndez
   a. As shown in photographs 54 and 55 there were several signs that a sanitary sewer overflow occurred at this location. There was debris, such as rags, paper, and other material at the rim of the manhole and debris on top of the

concrete block around the manhole. The manhole cover was not seated properly and was partially off the manhole rim. Sanitary Sewer Overflows at this location would flow into the Quebrada Juan Méndez just a few feet away. As shown in photographs 59 and 60 there was a buildup of material inside the sanitary sewer at this location.

b. As shown in photographs 63 and 64 (and video 66) there was a dry weather discharge into the Quebrada Juan Méndez via an outfall on the east side of the Quebrada, south of Calle Ariel and north of Calle Lince see Attachment 3. PRASA/MSJ must identify the source of the dry weather discharge and eliminate it if it is determined to be non-allowable, non-stormwater.

4. Across Quebrada Juan Méndez from Calle Ariel
As was also identified in February 2012 there was a large box culvert that was discharging into the Quebrada Juan Méndez (from the west side of the Quebrada). PRASA's June 14, 2012 letter in response to EPA indicated that this is not a PRASA box culvert.

5. Calle Lince and Calle Lira (Quebrada Juan Méndez drainage)

a. Sanitary Sewer Overflow - As shown in photograph 67 (and in Video 68) there was a sanitary sewer overflow from a manhole during dry weather at Calle Lince and Calle Lira. There was a strong sewage odor. As shown in photos 69 – 72 the flow from the overflowing manhole was entering stormwater catch basins on both sides of the street. The dry weather flow entering Quebrada Juan Méndez (south of Calle Ariel and north of Calle Lince) shown in photo 63, 64 and video 66 was suspected, but not confirmed, to be flowing from this Sanitary Sewer Overflow.

b. As shown in photographs 75 there was a sanitary sewer manhole at Calle Lince adjacent to Quebrada Juan Méndez. The manhole extended a few feet above the ground surface. Sewage solids were seen up to the top stairs of the manhole, but were not seen up to the top of or outside of the manhole. Outside of this manhole as shown in photograph 76, there appeared to be a black rubber fixture/pipe coming out of the manhole at the ground level (and directed towards the Quebrada Juan Méndez). The fixture/pipe appeared to be sealed, but this should be verified.

D. RIO PIEDRAS RIVER/PUERTO NUEVO CANAL/QUEBRADA DOÑA ANA POTENTIAL NON COMPLIANCE ITEMS/AREAS OF CONCERN - April 25, 2012

1. Jesús T. Piñero (PR-17) and the Río Piedras River
   As shown in photographs 77 – 79 there was a dry weather flow from a double barrel 7'x4' box culvert entering into the Río Piedras River (photo 78). There was no sewage odor or foaming associated with the discharge. Ammonia and pH screening with test strips showed a result of 0.25 mg/l and 6.5-7.0 SU respectively. The 2009 CSA report (See Attachment 4a) had identified that this location was potentially combined storm and sanitary. EPA could not locate the actual CSA inspection log, within the CSA report, but did locate the summary page and photos for this outfall. MSJ should verify that the dry weather flow from this outfall is allowable non-stormwater.

2. Jesús T. Piñero (PR-17) and Quebrada Doña Ana
   As shown in photographs 87, 88 and 90 there is a dry weather flow from a large round sewer pipe into the Quebrada Doña Ana, northwest of the Jesús T. Piñero Bridge over the Quebrada (east of Calle Andalucia). As shown in photograph 86 there are hypochlorite feed tanks located above this outfall that are no longer in use. Photograph 90 shows that there is a small (approximately <1", white PVC line) that is broken and water is coming out of this line and entering the large round sewer and flowing into the Quebrada. If this is a broken water line, it should be removed to prevent backflow from the outfall and Quebrada during high water. Screening samples at this outfall had ammonia levels of approximately 0.5 mg/l and a pH of 6.5 to 7.0 SU. MSJ and PRASA must determine the source of this discharge and if there are sources of non-allowable non-stormwater.

3. Franklin Delano Roosevelt Ave. (PR-23) and the Puerto Nuevo Canal
   a. South of PR-23 Bridge - As shown in photographs 90 to 94 there were at least two round sewer pipes with flap gates, visible) on the west side of the Puerto Nuevo Canal south of the Roosevelt Ave. (PR-23) bridge. The northernmost pipe visible from the bridge (photos 90 to 93) did have a dry weather flow. The southernmost pipe, visible from the bridge, (photo 94) did not appear to have a flow. MSJ and PRASA must determine the source of this dry weather flow and whether there is non-allowable non-stormwater. See Attachment 5a-1 for the MSJ map of the sewer system from the CSA report that depicts these outfalls at or near Calle Acapulco. EPA was not able to access the outfalls at this time to obtain a screening sample.

   b. North of Roosevelt Ave. (PR-23) Bridge on West Side of the Puerto Nuevo Canal
      As shown in photograph 96 during dry weather there was a round sewer pipe with little or no dry weather flow. A few minutes later after a brief, but intense rainfall, as shown in photographs 108 – 111, there was a turbid discharge from this outfall that was seen extending into the river. EPA was not able to access the outfall to

take a screening sample. MSJ/PRASA need to verify that only allowable non-stormwater is reaching this outfall. As shown in photographs 112 – 123, EPA opened several manholes on and around Calle Andalucia and Roosevelt Ave. (north side of intersection) to identify the source of the turbid discharge. EPA did not identify the source, but did note that there were manholes and/or sewers in need of cleaning (see photos 112, 116, 117, 119, and 123)

c. North of Roosevelt Ave. (PR-23) Bridge on East Side of Puerto Nuevo Canal
As described in attachment 5a, the CSA report identifies that there was a discharge from outfall G14a-S-004A that MSJ must investigate for potential sanitary sewage discharge. As shown in photos 97 to 107 there was a dry weather flow from this outfall during the EPA inspection, just prior to a rainfall event. The outfall is located just west of the Police headquarters building. EPA was not able to grab a screening sample from this outfall.

4. Behind 1150/1166 Ave. Américo Miranda and Quebrada Doña Ana
EPA visited this discharge point located behind the Aquasports Kayak Shop 1166 Ave. Américo Miranda into the Quebrada (See Photo 134). EPA had photographed this dry weather discharge in March 2012. At the time of this April 25, 2012 inspection there was a dry weather discharge with a sewage odor from this location. Photographs 128 – 132 show the dry weather discharge at this location. As shown in attachment 6a, the 2009 CSA report identified that there were signs of raw sewage in this discharge. As shown in photographs 133, 135, 136 and 138 EPA began opening manholes on Ave. Américo Miranda. The manhole (Photo 133) that was more or less in line with the discharge point could not be opened. The manholes shown in photos 135 and 136 did not appear to have flow and the manhole in photo 138 appeared to be flowing normally. PRASA/MSJ must work to identify the source of this discharge and eliminate it and open the manhole shown in Photo 133 on Ave. Américo Miranda behind the Kayak shop. An access point to the Quebrada was located in the parking lot of the copy shop located just west of the kayak shop, but EPA did not enter the Quebrada at this time.

E. -OTHER

1. As shown in photograph 85 there was a flow to the east side of the Quebrada Doña Ana north of the Piñero Bridge (PR-17) . EPA took a screening sample from the upstream stormwater manhole; the sample had no odor, ammonia concentration of approximately 0 mg/l and a pH of about 6 S.U.

F. ATTACHMENTS

1. Photograph Log and Photographs

2. Select 2009 CSA Report Segments/MSJ MS4 Maps – Quebrada San Antón
3. MSJ MS4 Map, Calle Lira/Calle Lince, Quebrada Juan Méndez
4. CSA Report 2009 Río Piedras River and PR-17 (Piñero)
5. CSA Report 2009, Puerto Nuevo Canal and Roosevelt Ave. (PR-23)
6. CSA Report 2009 and MSJ MS4 Map. Américo Miranda and Quebrada Doña Ana
7. March 2012 precipitation data at San Juan Luis Muñoz Marín Int. Airport
8. Original videos/photos from the inspection

ATTACHMENT 1
Photographs, Municipality of San Juan Reconnaissance Inspection, April 23 and 25, 2012, Taken by Murray Lantner, P.E., Environmental Engineer, Nikon Coolpix P510
*** Note that photo times are inaccurate, therefore the actual time on April 23, 2012 at 12 Noon corresponds approximately to a time on the camera of 2:30 AM on that same date.**

Photo ID No.	Date	Photo Description	Municipality
DSCN0005	4/23/2012	Double barrel rectangular sewer pipe with no apparent dry weather flow into Quebrada San Antón. The outfall is to the Northwest of the Campo Rico Bridge over the Quebrada at the intersection of Calle Carlos De La Torre and Avenida Campo Rico.	Carolina/San Juan (Collection System could be San Juan)
DSCN0006	4/23/2012	Outfall into Quebrada San Antón with vegetation growth around the outfall near Calle Belén Zequeira off of Calle De La Torre.	Carolina/San Juan (Collection System could be San Juan)
DSCN0007	4/23/2012	Outfall into Quebrada San Antón with vegetation growth around the outfall near Calle Belén Zequeira off of Calle De La Torre.	Carolina/San Juan (Collection System could be San Juan)
DSCN0008	4/23/2012	Outfall into Quebrada San Antón with vegetation growth around the outfall near Calle Belén Zequeira off of Calle De La Torre.	Carolina/San Juan (Collection System could be San Juan)
DSCN0009	4/23/2012	Dry weather trickle into the Quebrada San Antón at Calle Hernández and Calle de La Torre (Just north of School).	San Juan
DSCN0010	4/23/2012	Dry weather trickle into the Quebrada San Antón at Calle Hernández and Calle de La Torre (Just north of School).	San Juan
DSCN0011	4/23/2012	Missing manhole cover at Calle Ledru and Calle Carlos de La Torre.	San Juan
DSCN0012	4/23/2012	Missing manhole cover at Calle Ledru and Calle Carlos de La Torre.	San Juan
DSCN0013	4/23/2012	Street sign at Calle Amalio Roldán and Calle Carlos de la Torre.	San Juan
DSCN0014	4/23/2012	Catch basin at or near Calle Amalio Roldán and Calle Carlos de la Torre.	San Juan
DSCN0015	4/23/2012	Outfall to Quebrada San Antón at or near Calle Amalio Roldán and Calle Carlos de la Torre.	San Juan
DSCN0016	4/23/2012	Outfall to Quebrada San Antón at or near Calle Amalio Roldán and Calle Carlos de la Torre.	San Juan
DSCN0020	4/23/2012	Dry weather discharge from pipe on southwest side of the Quebrada San Antón (San Juan) at Calle Antonio Luciano and Garcilaso De La Vega.	San Juan
DSCN0021	4/23/2012	Quebrada San Antón, photo taken from San Juan side at Calle Antonio Luciano and Garcilaso De La Vega.	San Juan
DSCN0024	4/23/2012	Street sign for Calle Garcilaso de la Vega near Nicolas Aguayo, San Juan.	Carolina/San Juan

ATTACHMENT 1
Photographs, Municipality of San Juan Reconnaissance Inspection, April 23 and 25, 2012, Taken by Murray Lantner, P.E., Environmental Engineer, Nikon Coolpix P510
*** Note that photo times are inaccurate, therefore the actual time on April 23, 2012 at 12 Noon corresponds approximately to a time on the camera of 2:30 AM on that same date.**

Photo ID No.	Date	Photo Description	Municipality
DSCN0025	4/23/2012	Street sign for Calle La Riviera and Calle Lorena, Carolina.	Carolina/San Juan
DSCN0026	4/23/2012	Street sign for Calle Nicolas Aguayo near Calle Garcilaso de la Vega, San Juan.	Carolina/San Juan
DSCN0027	4/23/2012	Sewage flow from onto street (mixed with stormwater). The puddle on the sidewalk shows algal growth and had a sewage odor. The sanitary wastewater flow flows into the street and then enters the Quebrada San Antón near 1232 Nicolas Aguayo, San Juan just west of Calle Garcilaso de la Vega.	San Juan
DSCN0028	4/23/2012	House at 1232 Nicolas Aguayo, reported that there were sewer backs up at this location.	San Juan
DSCN0029	4/23/2012	Sewage flow on sidewalk 1232 Nicolas Aguayo, San Juan.	San Juan
DSCN0030	4/23/2012	Sewage and stormwater flow on the street at Calle Nicolas Aguayo/Garcilaso de la Vega. Flowing towards a storm inlet to Quebrada San Antón. Note the vegetation growth along the street.	San Juan
DSCN0031	4/23/2012	Sewage and stormwater flow on the street at Calle Nicolas Aguayo/Garcilaso de la Vega. Flowing towards a storm inlet to Quebrada San Antón.	San Juan
DSCN0032	4/23/2012	Sewage and stormwater flow on the street at Calle Nicolas Aguayo/Garcilaso de la Vega. Flowing towards a storm inlet to Quebrada San Antón.	San Juan
DSCN0033	4/23/2012	Sewage and stormwater flow on the street at Calle Nicolas Aguayo/Garcilaso de la Vega. Flowing towards a storm inlet to Quebrada San Antón. Note the vegetation growth along the street.	San Juan
DSCN0034	4/23/2012	Manhole in front of 1228 Nicolas Aguayo and 1229 Nicolas Aguayo was not flowing and appeared obstructed.	San Juan
DSCN0035	4/23/2012	Manhole in front of 1228 Nicolas Aguayo and 1229 Nicolas Aguayo was not flowing and appeared obstructed.	San Juan
DSCN0036	4/23/2012	Manhole on Nicolas Aguayo near Garcilaso de la Vega was flowing.	San Juan
DSCN0037	4/23/2012	Video of flow from disconnected house lateral. Lateral disconnected to prevent backups.	San Juan
DSCN0038	4/23/2012	Disconnected house lateral where flow from the lateral was flowing onto the sidewalk, puddle and ultimately flowing into the Quebrada San Antón.	San Juan

ATTACHMENT 1
Photographs, Municipality of San Juan Reconnaissance Inspection, April 23 and 25, 2012, Taken by Murray Lantner, P.E., Environmental Engineer, Nikon Coolpix P510
*** Note that photo times are inaccurate, therefore the actual time on April 23, 2012 at 12 Noon corresponds approximately to a time on the camera of 2:30 AM on that same date.**

Photo ID No.	Date	Photo Description	Municipality
DSCN0039	4/23/2012	Sanitary wastewater and stormwater on sidewalk near 1232 Nicolas Aguayo, ultimately flows into Quebrada San Antón.	San Juan
DSCN0040	4/23/2012	Sanitary wastewater and stormwater on sidewalk near 1232 Nicolas Aguayo, ultimately flows into Quebrada San Antón.	San Juan
DSCN0041	4/23/2012	Sanitary wastewater and stormwater on sidewalk near 1232 Nicolas Aguayo, ultimately flows into Quebrada San Antón.	San Juan
DSCN0042	4/23/2012	Sewer pipe discharging into the western side of Quebrada San Antón behind 1232 Nicolas Aguayo, San Juan.	San Juan
DSCN0043	4/23/2012	Video of Sewer pipe discharging into the western side of Quebrada San Antón behind 1232 Nicolas Aguayo, San Juan.	San Juan
DSCN0044	4/23/2012	Sewer pipe discharging into the western side of Quebrada San Antón behind 1232 Nicolas Aguayo, San Juan.	San Juan
DSCN0045	4/23/2012	Quebrada San Antón just downstream of the discharge pipe behind 1232 Nicolas Aguayo	Sasn Juan
DSCN0046	4/23/2012	Manhole located at Calle Nicolas Aguayo between 1229 and 1228 residences, there was high amount of solids.	San Juan
DSCN0047	4/23/2012	Manhole located at Calle Nicolas Aguayo between 1229 and 1228 residences, there was high amount of solids, apparently there was a blockage in the segment, because on the next manhole near Residence 1232 the flow was little.	San Juan
DSCN0048	4/23/2012	Discharge point Quebrada Juan Méndez and Ave. José De Diego (PR-47).	San Juan
DSCN0049	4/23/2012	Discharge point Quebrada Juan Méndez and Ave. José De Diego (PR-47).	San Juan
DSCN0050	4/23/2012	Discharge point Quebrada Juan Méndez and Ave. José De Diego (PR-47).	San Juan
DSCN0051	4/23/2012	Manhole located at the corner of Calle Lealtad and José De Diego (PR-47).	San Juan
DSCN0052	4/23/2012	Catch Basin at Lealtad and José De Diego (PR-47) that is in need of cleaning.	San Juan
DSCN0053	4/23/2012	Pooled water at Lealtad and José De Diego (PR-47).	San Juan
DSCN0054	4/23/2012	Manhole at Calle Ariel adjacent to Quebrada Juan Méndez, there was debris indicative of a sanitary sewer overflow around the top of the manhole and outside and around the manhole (paper, rags, etc.). The cover of the manhole was partially off.	San Juan

ATTACHMENT 1
Photographs, Municipality of San Juan Reconnaissance Inspection, April 23 and 25, 2012, Taken by Murray Lantner, P.E., Environmental Engineer, Nikon Coolpix P510
*** Note that photo times are inaccurate, therefore the actual time on April 23, 2012 at 12 Noon corresponds approximately to a time on the camera of 2:30 AM on that same date.**

Photo ID No.	Date	Photo Description	Municipality
DSCN0055	4/23/2012	Manhole at Calle Ariel adjacent to Quebrada Juan Méndez, there was debris indicative of a sanitary sewer overflow around the top of the manhole and outside and around the manhole. The cover of the manhole was partially off.	San Juan
DSCN0056	4/23/2012	Flow from a box culvert into Quebrada Juan Méndez on the east side of Quebrada Juan Méndez, opposite Calle Ariel.	San Juan
DSCN0057	4/23/2012	Flow from a box culvert into Quebrada Juan Méndez on the east side of Quebrada Juan Méndez, opposite Calle Ariel.	San Juan
DSCN0058	4/23/2012	Flow from a box culvert into Quebrada Juan Méndez on the east side of Quebrada Juan Méndez, opposite Calle Ariel.	San Juan
DSCN0059	4/23/2012	Inside the manhole (shown in photos 54 and 55) at Calle Ariel.	San Juan
DSCN0060	4/23/2012	Inside the manhole (shown in photos 54 and 55) at Calle Ariel.	San Juan
DSCN0061	4/23/2012	Blurry Photo	San Juan
DSCN0062	4/23/2012	Wall along the east side of Quebrada Juan Méndez south (upstream) of Calle Ariel.	San Juan
DSCN0063	4/23/2012	Dry weather discharge into Quebrada Juan Méndez along the east side of Quebrada south (upstream) of Calle Ariel.	San Juan
DSCN0064	4/23/2012	Dry weather discharge into Quebrada Juan Méndez along the east side of Quebrada south (upstream) of Calle Ariel	San Juan
DSCN0065	4/23/2012	Dry weather discharge into Quebrada Juan Méndez along the east side of Quebrada south (upstream) of Calle Ariel.	San Juan
DSCN0066	4/23/2012	Video of dry weather discharge with some suds flowing into Quebrada Juan Méndez just south (upstream) of Calle Ariel on the east side of the Quebrada Juan Méndez. (Video mistakenly stated upstream of Calle Lealtad).	San Juan
DSCN0067	4/23/2012	Sanitary sewer overflow at Calle Lira and Calle Lince. Sewage enters the stormwater catch basin.	San Juan
DSCN0068	4/23/2012	Video of Sanitary Sewer Overflow at Calle Lira and Calle Lince flowing into the storm water catch basin.	San Juan
DSCN0069	4/23/2012	Sanitary sewer overflow at Calle Lira and Calle Lince. Sewage enters the stormwater catch basin.	San Juan
DSCN0070	4/23/2012	Sanitary sewer overflow at Calle Lira and Calle Lince. Sewage enters the stormwater catch basin shown in this photo.	San Juan
DSCN0071	4/23/2012	Sanitary sewer overflow at Calle Lira and Calle Lince. Sewage enters the stormwater catch basin.	San Juan

ATTACHMENT 1
Photographs, Municipality of San Juan Reconnaissance Inspection, April 23 and 25, 2012, Taken by Murray Lantner, P.E., Environmental Engineer, Nikon Coolpix P510
*** Note that photo times are inaccurate, therefore the actual time on April 23, 2012 at 12 Noon corresponds approximately to a time on the camera of 2:30 AM on that same date.**

Photo ID No.	Date	Photo Description	Municipality
DSCN0072	4/23/2012	Sanitary sewer overflow at Calle Lira and Calle Lince. Sewage enters the stormwater catch basin.	San Juan
DSCN0073	4/23/2012	Street sign at Calle Lira and Calle Lince.	San Juan
DSCN0074	4/23/2012	Street sign at Calle Lira and Calle Lince.	San Juan
DSCN0075	4/23/2012	Sanitary Sewer Manhole at Calle Lince adjacent to Quebrada Juan Méndez. The manhole extended a few feet above the ground surface, sewage solids were seen up to the top stairs of the manhole, but were not seen up to the top of or outside of the manhole.	San Juan
DSCN0076	4/23/2012	Outside of manhole shown in photo 75, there appeared to be a black rubber fixture/pipe coming out of the manhole at the ground level. This pipe appeared to be sealed.	San Juan
DSCN0077	4/25/2012	Dry weather flow from double 7' x 4' box culvert at the Jesús T. Piñero (PR-17) and the Río Piedras River.	San Juan
DSCN0078	4/25/2012	Dry weather flow from double 7' x 4' box culvert at the Jesús T. Piñero (PR-17) and the Río Piedras River entering the Río Piedras River.	San Juan
DSCN0079	4/25/2012	Dry weather flow from double 7' x 4' box culvert at the Jesús T. Piñero (PR-17) and the Río Piedras River.	San Juan
DSCN0080	4/25/2012	Photo round sewer at Río Piedras River, no flow, PR-17 (Piñero) bridge.	San Juan
DSCN0081	4/25/2012	Sewer pipe apparently flowing normally (sewer not surcharged) along the east bank of the Río Piedras River north of the Jesús T. Piñero (PR-17) bridge.	San Juan
DSCN0082	4/25/2012	Sewer pipe apparently flowing normally (sewer not surcharged) along the east bank of the Río Piedras River north of the Jesús T. Piñero (PR-17) bridge.	San Juan
DSCN0083	4/25/2012	Two large diameter round sewers, with no flow, leading to the Río Piedras River to the north of PR-17 and to the north of the entrance ramps for PR-18 and PR-17.	San Juan
DSCN0084	4/25/2012	Río Piedras River to the north of PR-17 and to the north of the entrance ramps for PR-18 and PR-17.	San Juan
DSCN0085	4/25/2012	Dry weather flow from pipe into the east side of the Quebrada Doña Ana, north of the Piñero (PR-17) Bridge.	San Juan
DSCN0086	4/25/2012	Hypochlorite feed tanks no longer in use on the north west side of the Piñero (PR-17) Bridge over the Quebrada Doña Ana above large round sewer with a dry weather flow.	San Juan

ATTACHMENT 1
Photographs, Municipality of San Juan Reconnaissance Inspection, April 23 and 25, 2012, Taken by Murray Lantner, P.E., Environmental Engineer, Nikon Coolpix P510
*** Note that photo times are inaccurate, therefore the actual time on April 23, 2012 at 12 Noon corresponds approximately to a time on the camera of 2:30 AM on that same date.**

Photo ID No.	Date	Photo Description	Municipality
DSCN0087	4/25/2012	Large round sewer with a dry weather flow into the Quebrada Doña Ana on the northwest side of the Pinero (PR-17) Bridge.	San Juan
DSCN0088	4/25/2012	Large round sewer with a dry weather flow into the Quebrada Doña Ana on the northwest side of the Piñero (PR-17) Bridge.	San Juan
DSCN0089	4/25/2012	Hole in the concrete wall at the northwest side of the Quebrada Doña Ana relative to Pinero (PR-17) Bridge.	San Juan
DSCN0090	4/25/2012	Large round sewer with a dry weather flow into the Quebrada Doña Ana on the northwest side of the PR-17 (Piñero) bridge. As shown in the photo there is a small PVC line (appears to be less than an inch with flow coming out of it and entering the large round sewer).	San Juan
DSCN0091	4/25/2012	The northern round sewer with a flap gate with a dry weather discharge located on the west side of the Puerto Nuevo Canal, south of the Roosevelt Ave. (PR-23) Bridge.	San Juan
DSCN0092	4/25/2012	The northern round sewer with a flap gate with a dry weather discharge located on the west side of the Puerto Nuevo Canal, south of the Roosevelt Ave. (PR-23) Bridge.	San Juan
DSCN0093	4/25/2012	The northern round sewer with a flap gate with a dry weather discharge located on the west side of the Puerto Nuevo Canal, south of the Roosevelt Ave. (PR-23) Bridge.	San Juan
DSCN0094	4/25/2012	Blank Video	San Juan
DSCN0095	4/25/2012	The southern round sewer with a flap gate located on the west side of the Puerto Nuevo Canal, south of Roosevelt Ave. (PR-23) Bridge.	San Juan
DSCN0096	4/25/2012	Round stormsewer on the west bank of the Puerto Nuevo Canal with little or no dry weather flow, north of the Roosevelt Ave. (PR-23 Bridge).	San Juan
DSCN0097	4/25/2012	Dry weather flow from Outfall on the east side of the Puerto Nuevo Canal, North of the Roosevelt Ave. (PR-23) Bridge, adjacent to Police building.	San Juan
DSCN0098	4/25/2012	Dry weather flow from Outfall on the east side of the Puerto Nuevo Canal, North of the Roosevelt Ave. (PR-23) Bridge, adjacent to Police building.	San Juan
DSCN0099	4/25/2012	Dry weather flow from Outfall on the east side of the Puerto Nuevo Canal, North of the Roosevelt Ave. (PR-23) Bridge, adjacent to Police building.	San Juan

ATTACHMENT 1
Photographs, Municipality of San Juan Reconnaissance Inspection, April 23 and 25, 2012, Taken by Murray Lantner, P.E., Environmental Engineer, Nikon Coolpix P510
*** Note that photo times are inaccurate, therefore the actual time on April 23, 2012 at 12 Noon corresponds approximately to a time on the camera of 2:30 AM on that same date.**

Photo ID No.	Date	Photo Description	Municipality
DSCN0100	4/25/2012	Dry weather flow from Outfall on the east side of the Puerto Nuevo Canal, North of the Roosevelt Ave. (PR-23) Bridge, adjacent to Police building.	San Juan
DSCN0101	4/25/2012	Dry weather flow from Outfall on the east side of the Puerto Nuevo Canal, North of the Roosevelt Ave. (PR-23) Bridge, adjacent to Police building.	San Juan
DSCN0102	4/25/2012	Dry weather flow from Outfall on the east side of the Puerto Nuevo Canal, North of the Roosevelt Ave. (PR-23) Bridge, adjacent to Police building.	San Juan
DSCN0103	4/25/2012	Dry weather flow from Outfall on the east side of the Puerto Nuevo Canal, North of the Roosevelt Ave. (PR-23) Bridge, adjacent to Police building.	San Juan
DSCN0104	4/25/2012	Dry weather flow from Outfall on the east side of the Puerto Nuevo Canal, North of the Roosevelt Ave. (PR-23) Bridge, adjacent to Police building.	San Juan
DSCN0105	4/25/2012	Dry weather flow from Outfall on the east side of the Puerto Nuevo Canal, North of the Roosevelt Ave. (PR-23) Bridge, adjacent to Police building.	San Juan
DSCN0106	4/25/2012	Dry weather flow from Outfall on the east side of the Puerto Nuevo Canal, North of the Roosevelt Ave. (PR-23) Bridge, adjacent to Police building.	San Juan
DSCN0107	4/25/2012	Dry weather flow from Outfall on the east side of the Puerto Nuevo Canal, North of the Roosevelt Ave. (PR-23) Bridge, adjacent to Police building.	San Juan
DSCN0108	4/25/2012	North of Roosevelt Ave. PR-23 Bridge on West Side of the Puerto Nuevo Canal turbid discharge from outfall. The turbid plume from the outfall was seen extending into the Puerto Nuevo Canal.	San Juan
DSCN0109	4/25/2012	North of Roosevelt Ave. PR-23 Bridge on West Side of the Puerto Nuevo Canal turbid discharge from outfall. The turbid plume from the outfall was seen extending into the Puerto Nuevo Canal.	San Juan
DSCN0110	4/25/2012	North of Roosevelt Ave. PR-23 Bridge on West Side of the Puerto Nuevo Canal turbid discharge from outfall. The turbid plume from the outfall was seen extending into the Puerto Nuevo Canal.	San Juan

ATTACHMENT 1
Photographs, Municipality of San Juan Reconnaissance Inspection, April 23 and 25, 2012, Taken by Murray Lantner, P.E., Environmental Engineer, Nikon Coolpix P510
*** Note that photo times are inaccurate, therefore the actual time on April 23, 2012 at 12 Noon corresponds approximately to a time on the camera of 2:30 AM on that same date.**

Photo ID No.	Date	Photo Description	Municipality
DSCN0111	4/25/2012	North of Roosevelt Ave. PR-23 Bridge on West Side of the Puerto Nuevo Canal turbid discharge from outfall. The turbid plume from the outfall was seen extending into the Puerto Nuevo Canal.	San Juan
DSCN0112	4/25/2012	Manhole on Calle Andalucia north of Roosevelt Ave. near the building in photograph 113. The level of water in the sewer was fairly high.	San Juan
DSCN0113	4/25/2012	Building near manhole shown in photo 112 on Calle Andalucia north of Roosevelt Ave.	San Juan
DSCN0114	4/25/2012	Building near manhole shown in photo 112 on Calle Andalucia north of Roosevelt Ave.	San Juan
DSCN0115	4/25/2012	Manhole at or about Calle Andalucia and Ave. Roosevelt (northern side).	San Juan
DSCN0116	4/25/2012	Manhole at or about Calle Andalucia and Ave. Roosevelt (northern side).	San Juan
DSCN0117	4/25/2012	Apparent Sanitary sewer, with floating material and cockroaches. The water level in the sewer appeared fairly high. The manhole was located near United Tile store on the north side of Roosevelt Ave. (PR-23) east of Calle Andalucia.	San Juan
DSCN0118	4/25/2012	United Tile store on Roosevelt Ave. (PR-23) east of Calle Andalucia and near the manhole shown in photographs 117 and 119.	San Juan
DSCN0119	4/25/2012	Apparent Sanitary sewer, with material with floating material and cockroaches. The water level in the sewer appeared fairly high. The manhole was located near United Tile store on the north side of Roosevelt Ave. (PR-23) east of Calle Andalucia.	San Juan
DSCN0120	4/25/2012	Manhole on the northern side of Roosevelt Ave. (PR-23) west of the Puerto Nuevo Canal and east of Calle Andalucia. And west of the manhole shown in Photo 121.	San Juan
DSCN0121	4/25/2012	Potential storm sewer line manhole on the northern side of Roosevelt Ave. (PR-23) west of the Puerto Nuevo Canal and east of Calle Andalucia. This was following a rain event and the sewer appeared to be flowing normally.	San Juan
DSCN0122	4/25/2012	Potential storm sewer line manhole on the northern side of Roosevelt Ave. (PR-23) west of the Puerto Nuevo Canal and east of Calle Andalucia. This was following a rain event and the sewer appeared to be flowing normally.	San Juan

ATTACHMENT 1
Photographs, Municipality of San Juan Reconnaissance Inspection, April 23 and 25, 2012, Taken by Murray Lantner, P.E., Environmental Engineer, Nikon Coolpix P510
*** Note that photo times are inaccurate, therefore the actual time on April 23, 2012 at 12 Noon corresponds approximately to a time on the camera of 2:30 AM on that same date.**

Photo ID No.	Date	Photo Description	Municipality
DSCN0123	4/25/2012	Manhole on northern sidewalk of Roosevelt Ave. (PR-23) west of the Puerto Nuevo Canal and east of Calle Andalucia. The water level in the sewer was high and appeared to be in need of cleaning.	San Juan
DSCN0124	4/25/2012	Large diameter round sewer on east side of the Quebrada Doña Ana south of the Jesús T. Piñero (PR-17 Bridge).	San Juan
DSCN0125	4/25/2012	Quebrada Doña Ana - Near Large diameter round sewer on east side of the Quebrada Doña Ana south of the Jesús T. Piñero (PR-17 Bridge)	San Juan
DSCN0126	4/25/2012	Quebrada Doña Ana - Behind Kayak Shop Ave. Américo Miranda near dry weather overflow shown in photos 128 to 132	San Juan
DSCN0127	4/25/2012	Quebrada Doña Ana - Behind Kayak Shop Ave. Américo Miranda near dry weather overflow shown in photos 128 to 132	San Juan
DSCN0128	4/25/2012	Dry weather flow from sewer into Quebrada Doña Ana behind (north of) stores located at (Copy Shop/Aquasports Kayak) 1150/1166 Ave. Américo Miranda	San Juan
DSCN0129	4/25/2012	Dry weather flow from sewer into Quebrada Doña Ana behind (north of) stores located at (Copy Shop/Aquasports Kayak) 1150/1166 Ave. Américo Miranda	San Juan
DSCN0130	4/25/2012	Dry weather flow from sewer into Quebrada Doña Ana behind (north of) stores located at (Copy Shop/Aquasports Kayak) 1150/1166 Ave. Américo Miranda	San Juan
DSCN0131	4/25/2012	Dry weather flow from sewer into Quebrada Doña Ana behind (north of) stores located at (Copy Shop/Aquasports Kayak) 1150/1166 Ave. Américo Miranda	San Juan
DSCN0132	4/25/2012	Dry weather flow from sewer into Quebrada Doña Ana behind (north of) stores located at (Copy Shop/Aquasports Kayak) 1150/1166 Ave. Américo Miranda	San Juan
DSCN0133	4/25/2012	Manhole on Ave. Américo Miranda west of the Kayak Shop that is paved shut	San Juan
DSCN0134	4/25/2012	Aquasports Kayak shop on Ave. Américo Miranda	San Juan
DSCN0135	4/25/2012	Manhole, no flow seen, In the Vicinity of Ave. Américo Miranda between Calle 21 SE and Calle 23 SE	San Juan
DSCN0136	4/25/2012	Manhole, no flow seen, In the Vicinity of Ave. Américo Miranda between Calle 21 SE and Calle 23 SE	San Juan
DSCN0137	4/25/2012	Blurry Picture	San Juan

ATTACHMENT 1
Photographs, Municipality of San Juan Reconnaissance Inspection, April 23 and 25, 2012, Taken by Murray Lantner, P.E., Environmental Engineer, Nikon Coolpix P510
*** Note that photo times are inaccurate, therefore the actual time on April 23, 2012 at 12 Noon corresponds approximately to a time on the camera of 2:30 AM on that same date.**

Photo ID No.	Date	Photo Description	Municipality
DSCN0138	4/25/2012	Manhole, no flow seen, In the Vicinity of Ave. Américo Miranda between Calle 21 SE and Calle 23 SE	San Juan

DSCN0005.JPG

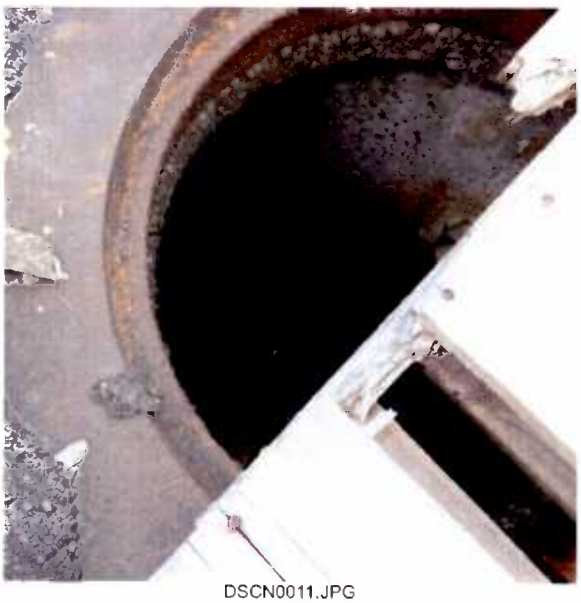
DSCN0006.JPG

DSCN0007.JPG

DSCN0008.JPG

DSCN0009.JPG

DSCN0010.JPG



DSCN0011.JPG

DSCN0012.JPG

DSCN0013.JPG

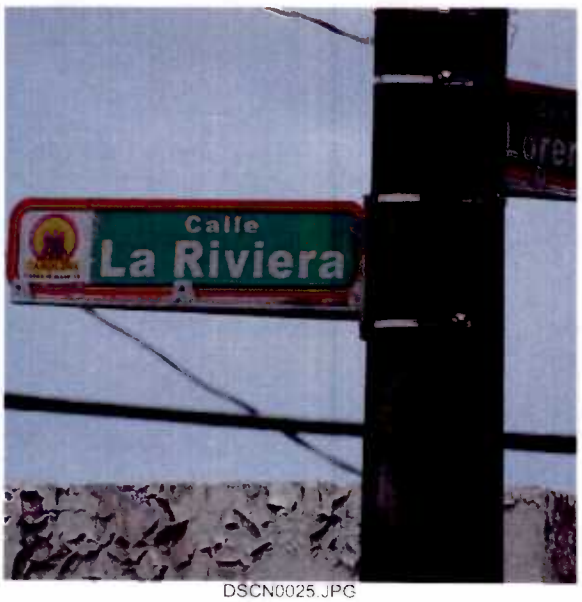

DSCN0014.JPG


DSCN0015.JPG


DSCN0016.JPG

DSCN0021.JPG

DSCN0024.JPG



DSCN0025.JPG

DSCN0026.JPG

DSCN0027.JPG

DSCN0028.JPG

DSCN0029.JPG

DSCN0030.JPG

DSCN0031.JPG

DSCN0032.JPG

DSCN0033.JPG

DSCN0034.JPG

DSCN0035.JPG

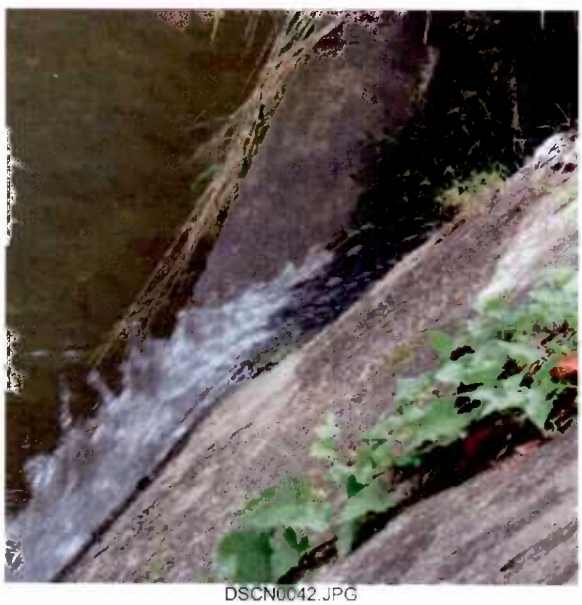
DSCN0036.JPG

DSCN0038.JPG

DSCN0039.JPG

DSCN0040.JPG

DSCN0041.JPG



DSCN0042.JPG

DSCN0044.JPG

DSCN0045.JPG

DSCN0046.JPG

DSCN0047.JPG

DSCN0048.JPG

DSCN0049.JPG

DSCN0050.JPG

DSCN0051.JPG

DSCN0052.JPG

DSCN0053.JPG

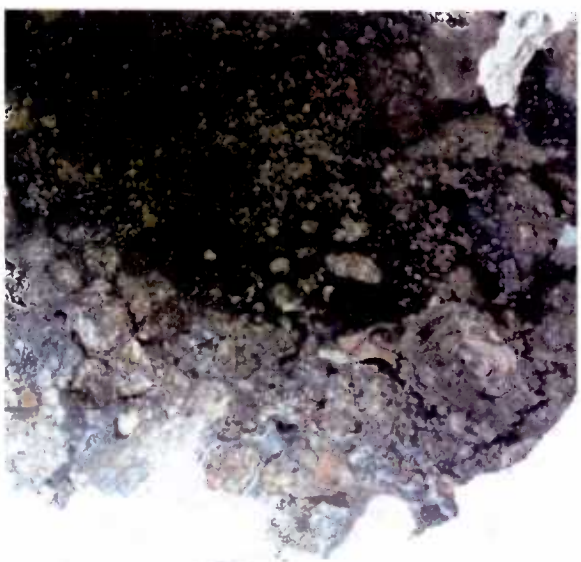
DSCN0054.JPG

DSCN0055.JPG

DSCN0056.JPG

DSCN0057.JPG

DSCN0058.JPG



DSCN0059.JPG

DSCN0060.JPG

DSCN0061.JPG

DSCN0062.JPG

DSCN0063.JPG

DSCN0064.JPG

DSCN0065.JPG

DSCN0067.JPG

DSCN0069.JPG

DSCN0070.JPG

DSCN0071.JPG

DSCN0072.JPG

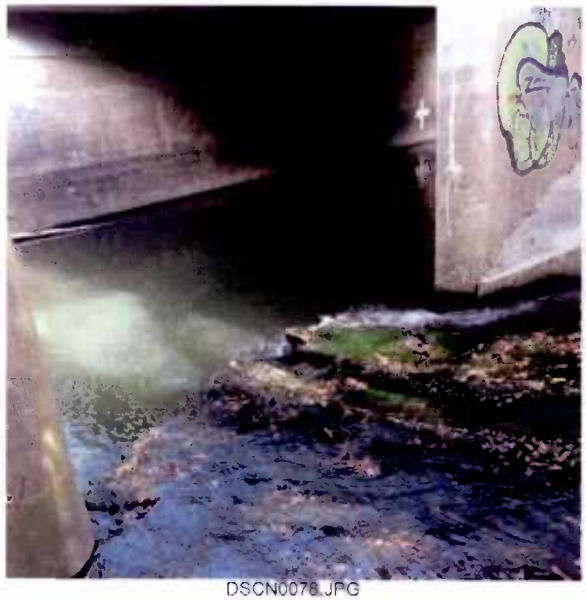
DSCN0073.JPG

DSCN0074.JPG

DSCN0075.JPG

DSCN0076.JPG

DSCN0077.JPG

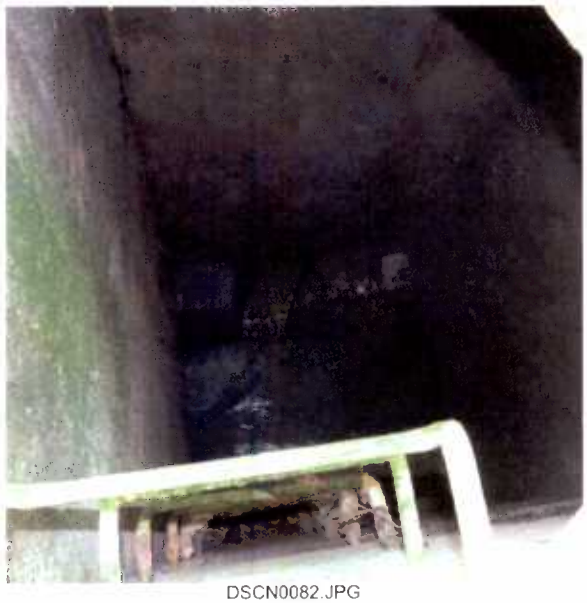


DSCN0078.JPG

DSCN0079.JPG

DSCN0080.JPG

DSCN0081.JPG



DSCN0082.JPG

DSCN0083.JPG

DSCN0084.JPG

DSCN0085.JPG

DSCN0086.JPG

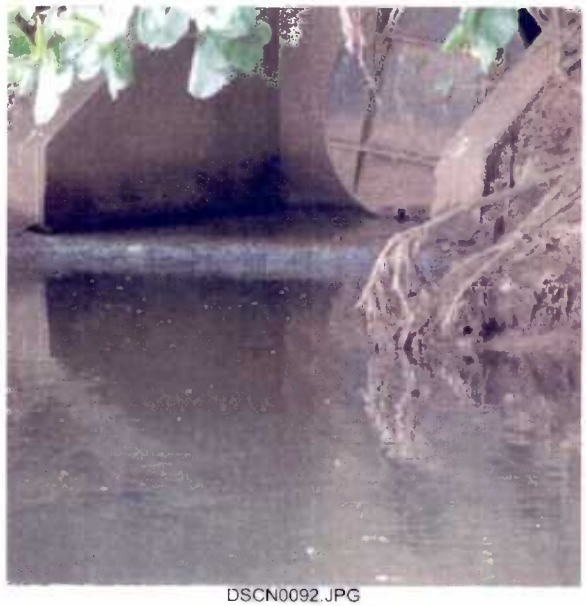
DSCN0087.JPG

DSCN0088.JPG

DSCN0089.JPG

DSCN0090.JPG

DSCN0091.JPG



DSCN0092.JPG

DSCN0093.JPG

DSCN0095.JPG

DSCN0096.JPG

DSCN0097.JPG

DSCN0098.JPG

DSCN0099.JPG

DSCN0100.JPG

DSCN0101.JPG

DSCN0102.JPG

DSCN0103.JPG

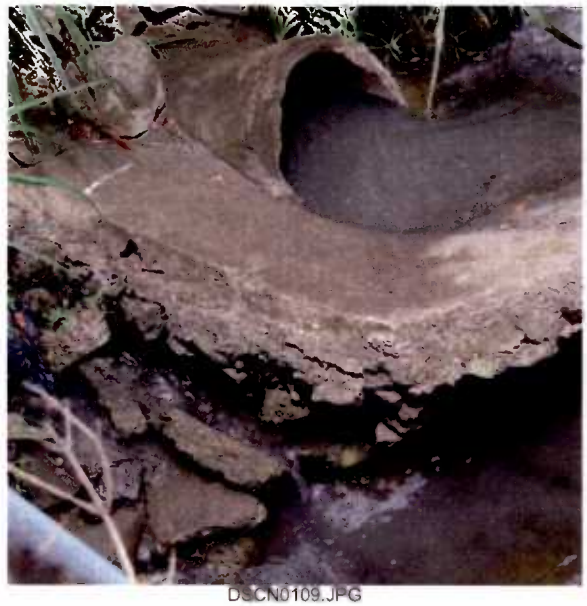
DSCN0104.JPG

DSCN0105.JPG

DSCN0106.JPG

DSCN0107.JPG

DSCN0108.JPG



DSCN0109.JPG

DSCN0110.JPG

DSCN0111.JPG

DSCN0112.JPG

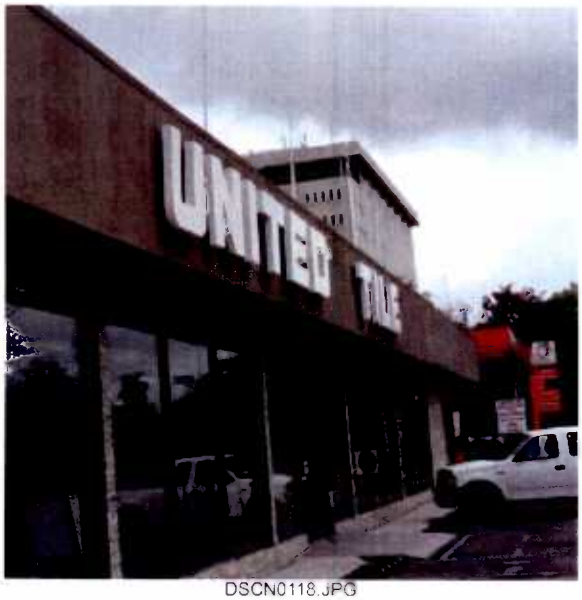
DSCN0113.JPG

DSCN0114.JPG

DSCN0115.JPG

DSCN0116.JPG

DSCN0117.JPG



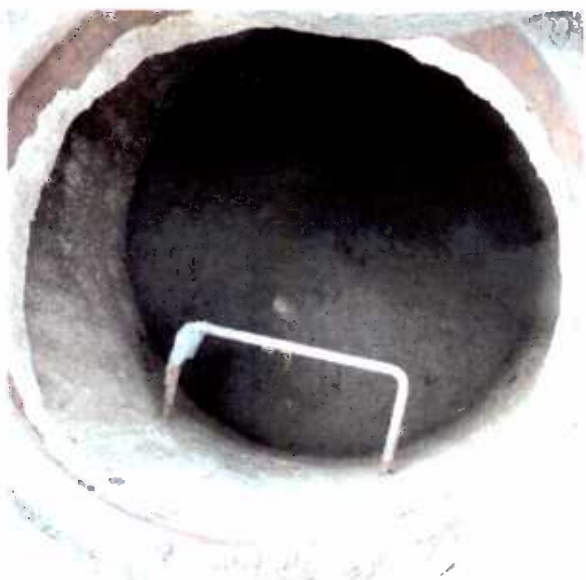
DSCN0118.JPG

DSCN0119.JPG

DSCN0120.JPG

DSCN0121.JPG

DSCN0122.JPG



DSCN0123.JPG

DSCN0124.JPG

DSCN0125.JPG

DSCN0126.JPG

DSCN0127.JPG

DSCN0128.JPG

DSCN0129.JPG

DSCN0130.JPG

DSCN0131.JPG

DSCN0132.JPG

DSCN0133.JPG

DSCN0134.JPG

DSCN0135.JPG

DSCN0136.JPG

DSCN0137.JPG

DSCN0138.JPG

Attachment 2a-1 - Quebrada San Anton – Calle Carlos De La Torres and Calle Belen Zequeira - Sabana Llana Country Club Q15d

Att. 2a-2, Q15d-S005a, Quebrada San Anton, Sabana Llana Country Club Calle Belen Zequeira and Calle Carlos de la Torres

CSA Group

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Date: 08/OCT/09	Outfall ID: S-005A
Brigade No: 4	Body of Water: QBDA. SAN ANTON
Grid (Cuadricula): Q15d	Region: 3
Barrio: SABANA LLANA	Sector: COUNTRY CLUB
GPS Unit:	GPS LMK #:
Street: C. BELEN ZEQUEIRA INT. C. CARLOS DE LA TORRES	Photo #s: 5122, 5123

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☒ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes:

¿Esta estructura esta en los planos del Municipio de San Juan? ☐ Si ☒ No

SECTION 2: OUTFALL DESCRIPTION

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN)	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☒ Other: RC	☐ Circular ☐ Elliptical ☒ Box ☐ Other:	☒ Single ☐ Double ☐ Triple ☐ Other:	Diameter/Dimensions: NO SE PUDO VER DIAMETRO O DIMENSIONES APROXIMADAS	In Water: ☒ No ☐ Partially ☐ Fully; With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other:	☐ Trapezoid ☐ Parabolic ☐ Other:		Depth: Top Width: Bottom Width:	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☐ Yes ☒ No	*If No, Skip to Section 4*			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

IMG_5122

IMG_5123

Att. 2a-3, Q15d-S005a, Quebrada San Anton, Sabana Llana Country Club Calle Belen Zequeira and Calle Carlos de la Torres

CSA Group

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No *(If No, Skip to Section 4)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☒ Yes ☐ No

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☒	☒ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Recommendations:

☒ Immediate Action ☐ Intermediate action ☐ Long time action

☒ Cleaning, uncover

Att. 2a-4 Q15d-S006a, Quebrada San Anton, Sabana Llana Country Club – Calle Belen Zequeira and Calle Carlos de la Torres

CH2M Hill

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Date: 08/OCT/09	Outfall ID: S-006A
Crew No.: 1	Body of Water: QDDA. SAN ANTON
Grid (Quadrant): Q15 d	Region: 3
Basin: SABANA LLANA	Sector: COUNTRY CLUB
Street: C CARLOS DE LA TORRES	Photo #: 5120, 5121

Land Use in Drainage Area (Check all that apply)

- ☐ Industrial
- ☐ Open Space
- ☒ Ultra-Urban Residential
- ☐ Institutional
- ☐ Suburban Residential
- Other: _____
- ☐ Commercial
- Known Industries: _____

Notes:

¿Esta estructura esta en los planos del Municipio de San Juan? ☐ Si ☒ No

SECTION 2: OUTFALL DESCRIPTION

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Elliptical ☐ Box ☐ Other: _____ / ☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 12	In Water: ☒ No ☐ Partially ☐ Fully. With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ Riprap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	Implies water when collecting samples!			
Flow Present?	☒ Yes ☐ No	If No, Skip to Section 4		
Flow Description (If present)	☒ Trickle ☐ Moderate ☐ Substantial			

IMG_5121

IMG_5120

(Att. 2a-5)Q15d-S006a, Quebrada San Anton, Sabana Llana Country Club – Calle Belen Zequeira and Calle Carlos de la Torres

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☒ Yes ☐ No *(If No, Skip to Section 4)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/Sour ☐ Petroleum/gas ☐ Sulfide ☐ Other	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☒	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☒ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables (Does Not Include Trash)	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐ 3 – Stains; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No

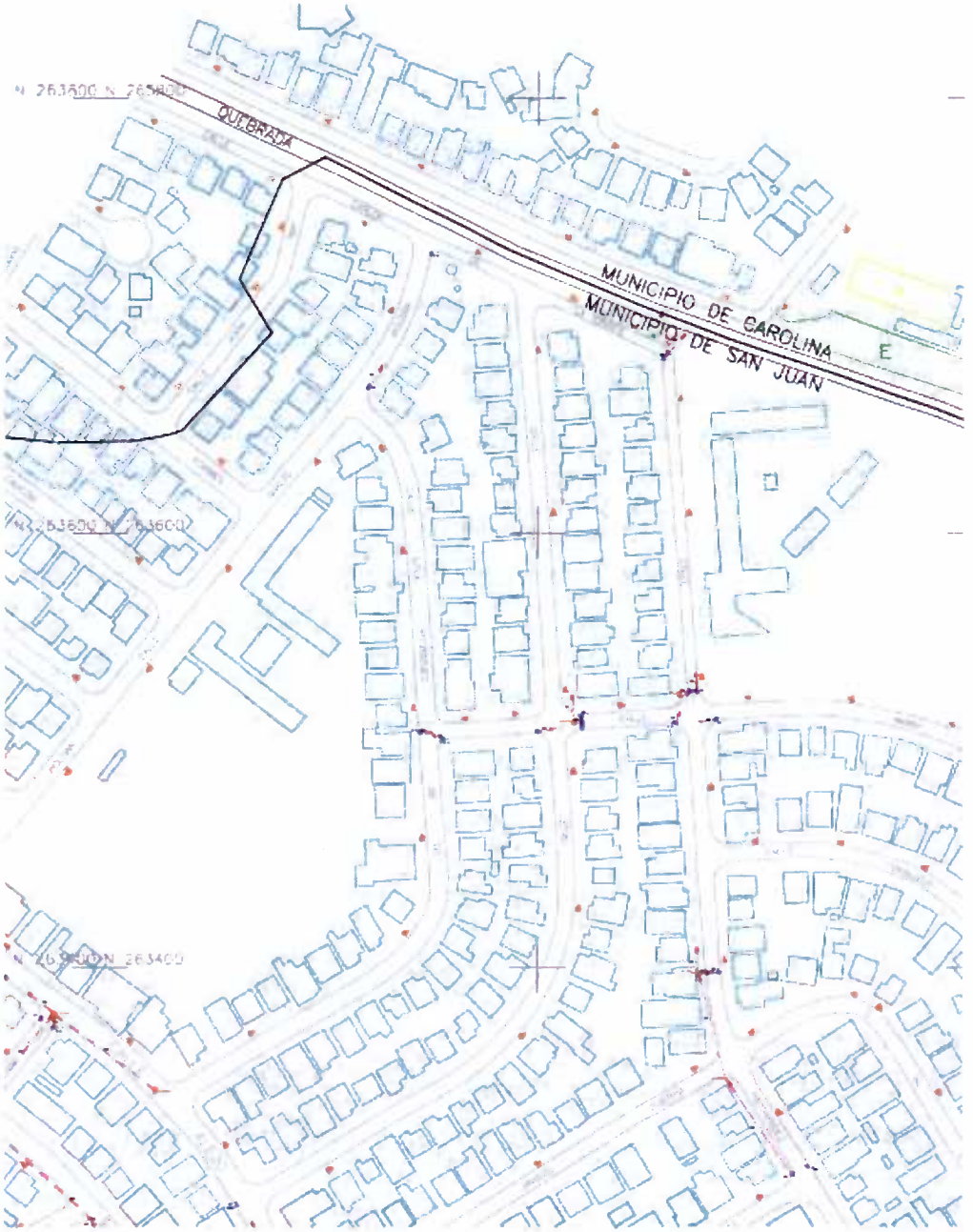
INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Recommendations:

☐ Immediate Action ☐ Intermediate action ☐ Long time action

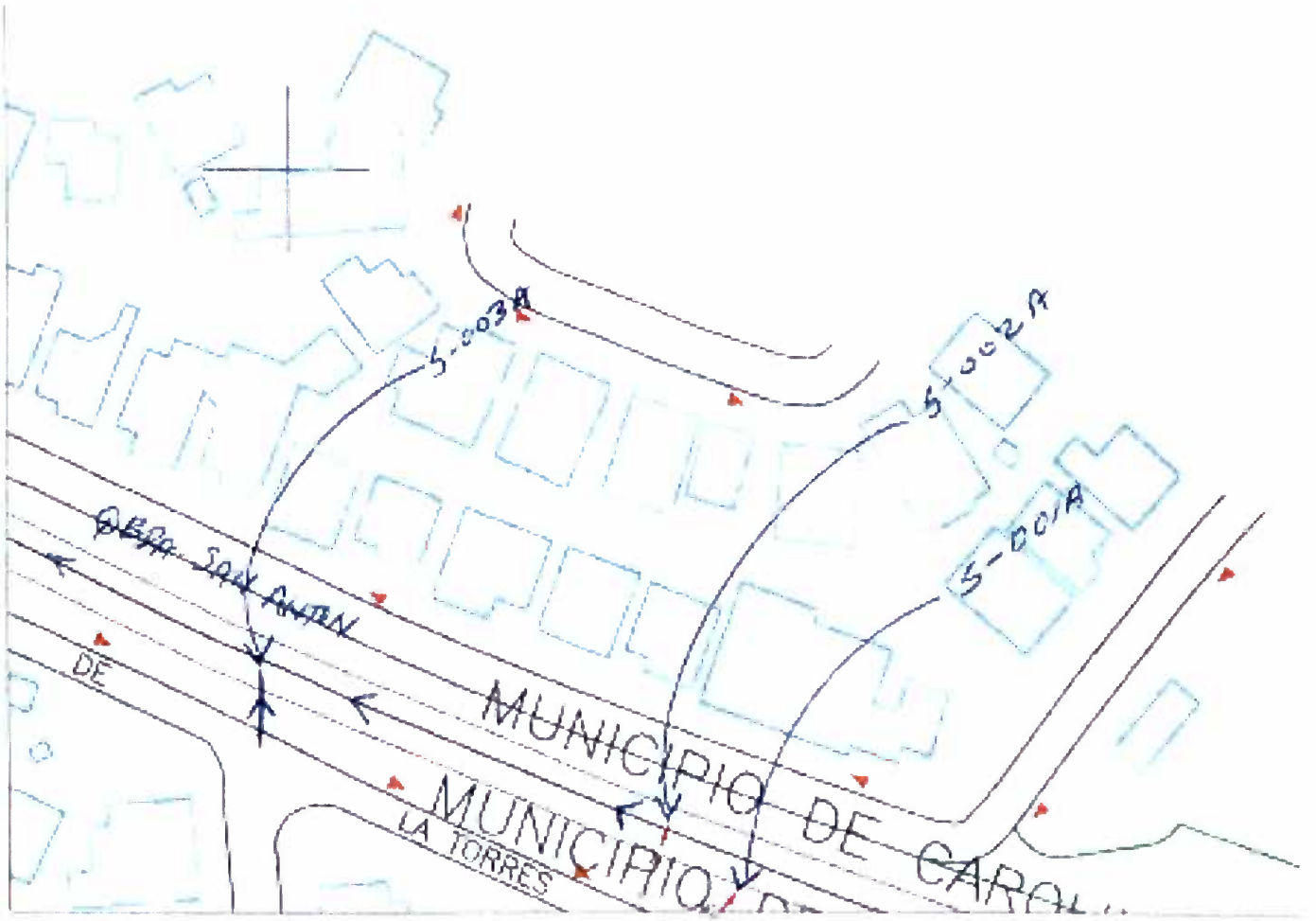
☐ Cleaning, uncover

VERIFICAR POSIBLE DESCARGA DE SISTEMA SANITARIO EN EL SISTEMA PLUVIAL DE SER ASÍ SE DEBE REALIZAR TRABAJOS PARA SEPARAR SISTEMAS



Att. 2b-1 – Area of R-15-C (S001a-S003a) Quebrada San Anton – Sabana Llana Country Club from MSJ MS4 Map

Attachment 2b-2 Quebrada San Anton – CSA Map Sabana Llana Country Club
Carpeta 11 – R 15c S001a and S003a



Attachment 2b-3 Quebrada San Anton – CSA Report Sabana Llana Country Club Carpeta 11 – R 15c S001a – Calle Hernandez and Carlos De La Torres

CSA Group

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Date: 08/ OCT /09	Outfall ID: S-001A
Brigade No: 4	Body of Water: QBDA. SAN ANTON
Grid (Cuadricula): RISC / Region: 3	
Barrio: SABANA LLANA / Sector: COUNTRY CLUB	GPS User / GPS LMK #:
Street: C. DE LA TORRES	Photo #: 5106, 5107

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☒ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: ______
- Known Industries: ______

Notes:

¿Esta estructura esta en los límites del Municipio de San Juan? ☒ Sí ☐ No

SECTION 2: OUTFALL DESCRIPTION

LOCATION	MATERIAL		SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other ____		☒ Circular ☐ Elliptical ☐ Box ☐ Other: ____	☒ Single ☐ Double ☐ Triple ☐ Other: ____	Diameter/Dimensions: 36	In Water: ☒ No ☐ Partially ☐ Fully With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other ____		☐ Trapezoid ☐ Parabolic ☐ Other ____		Depth: ____ Top Width: ____ Bottom Width: ____	
☐ In-Stream	(applicable when collecting samples)					
Flow Present?	☒ Yes	☐ No	If No, Skip to Section 4			
Flow Description (If present)	☒ Trickle	☐ Moderate	☐ Substantial			

IMG_5106

IMG_5107

Attachment 2b-4 Quebrada San Anton – CSA Report Sabana Llana Country Club Carpeta 11 – R 15c S001a – Calle Hernandez and Carlos De La Torres

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☒ Yes ☐ No *(If No, Skip to Section 4)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☒	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☒ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint color in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indicators of origin (e.g., possible suds or oil sheen)	☐ 3 – Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Recommendations:

☐ Immediate Action ☐ Intermediate action ☐ Long time action

☐ Cleaning, uncover

VERIFICAR POSIBLES DESCARGAS SANITARIA EN EL SISTEMA PLUVIAL DE SER ASI SE DEBE REALIZAR TRABAJOS PARA SEPARAR LOS SISTEMAS.

Attachment 2b-4 - R15c S003a – Quebrada San Anton – Sabana Llana Country Club, Calle Carlos De La Torres near Calle Ledru

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Date: 08/OCT/09 — Outfall ID: S-003A

Brigade No.: 4 — Body of Water: QBDA. SAN ANTON

Quad (Quadrado): RISC — Region: 3

Barrio: SABANA LLANA — Sector: COUNTRY CLUB — GPS Unit: — GPS Lat/Long #:

Street: C. DE LA TORRES — Photo #s: S110, S111

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☒ Mixed Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____

Known Industries: _____

Notes:

¿Esta estructura esta en los planos del Municipio de San Juan? ☐ Si ☒ No

SECTION 2: OUTFALL DESCRIPTION

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ SMC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Elliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 54	In Water: ☒ No ☐ Partially ☐ Fully; With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ Riprap ☐ Other: _____	☐ Trapezoidal ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when flowing or pooling)				
Flow Present?	☒ Yes ☐ No	If No, Skip to Section 4			
Flow Description (If present)	☒ Trickle ☐ Moderate ☐ Substantial				

IMG_5110

IMG_5111

Attachment 2b-5 - R15c S003a – Quebrada San Anton – Sabana Llana Country Club, Calle Carlos De La Torres near Calle Ledru

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☒ Yes ☐ No *(If No, Skip to Section 4)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/Sour ☐ Petroleum/Gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☒	☐ Clear ☒ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 – Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Recommendations:

☐ Immediate Action ☐ Intermediate action ☐ Long time action

☐ Cleaning, cutover

VERIFICAR POSIBLE DESCARGA SANITARIA EN EL SISTEMA PLUVIAL DE SER ASÍ SE DEBE REALIZAR TRABAJOS PARA SEPARAR SISTEMAS.

Att. 2b-6 - Q15d-S004a, Quebrada San Anton, Sabana Llana Country Club – Calle Carlos de la Torres

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Date: 08/OCT/09 | Outfall ID: S-004A

Brigade No.: 4 | Body of Water: QBDA SAN ANTON

Grid (Cuadrante): Q15d | Region: 3

Barrio: SABANA LLANA | Sector: COUNTRY CLUB | GPS Unit: | GPS UNIT #:

Street: C. CARLOS DE LA TORRES | Photo #s: 5118, 5119

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☒ Urban/Uptown Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes:

¿Esta estructura esta en los planos del Municipio de San Juan? ☐ Si ☒ No

SECTION 2: OUTFALL DESCRIPTION

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other _____	☒ Circular ☐ Elliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 12	In Water: ☒ No ☐ Partially ☐ Fully; With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ Riprap ☐ Other _____	☐ Trapezoid ☐ Parabolic ☐ Other _____		Depth: _____ Top Width: _____ Bottom Width: _____
☐ In-Stream	(applicable when flowing or pooled)			
Flow Present?	☒ Yes ☐ No	If No, Skip to Section 3		
Flow Description (If present)	☒ Trickle ☐ Moderate ☐ Substantial			

IMG_5119

Att. 2b-7 - Q15d-S004a, Quebrada San Anton, Sabana Llana Country Club – Calle Carlos de la Torres

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☒ Yes ☐ No *(If No, Skip to Section 4)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/Sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☒	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☒ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint color in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 – Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Recommendations:

☐ Immediate Action ☐ Intermediate action ☐ Long time action

☐ Cleaning, uncover

VERIFICAR POSIBLE DESCARGA SANITARIA AL SISTEMA PLUVIAL DE SER ASÍ SE DEBEN REALIZAR TRABAJOS PARA SEPARAR LOS SISTEMAS

Att. 2c-1 - MSJ MS4 Map – Quebrada San Anton – Consuelo Matos, Antonio Luciano

Att. 2c-2-R16d-S002a – Calle Garcilaso de la Vega and Antonio Luciano

CSA Group

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Date: 08/OCT/09	Outfall ID: S-002A
Brigade No: 4	Body of Water: QBDA. SAN ANTON
Grid (Cuadricula): R16d	Region: 3
Barrio: SABANA LLANA	Sector: EL COMANDANTE
Street: C. GARCILASO DE LA VEGA INT. C. ANTONIO LUCIANO	GPS Unit: / GPS LMK #: / Photo #s: 5082, 5083

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☒ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes:

¿Esta estructura esta en los planos del Municipio de San Juan? ☒ Si ☐ No

SECTION 2: OUTFALL DESCRIPTION

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Elliptical ☐ Box ☐ Other: ____	☒ Single ☐ Double ☐ Triple ☐ Other: ____	Diameter/Dimensions: 36	In Water: ☒ No ☐ Partially ☐ Fully; With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: ____	☐ Trapezoid ☐ Parabolic ☐ Other: ____	Depth: ____ Top Width: ____ Bottom Width: ____	
☐ In-Stream	(applicable when collecting samples)			
Flow Present?	☒ Yes ☐ No	*If No, Skip to Section 4*		
Flow Description (If present)	☒ Trickle ☐ Moderate ☐ Substantial			

IMG_5082

IMG_5083

Att. 2c-3-R16d-S002a – Calle Garcilaso de la Vega and Antonio Luciano

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only
Are Any Physical Indicators Present in the flow? ☒ Yes ☐ No *(If No, Skip to Section 4)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☒	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☒ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 – Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls
Are physical indicators that are not related to flow present? ☐ Yes ☐ No

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Recommendations:

☐ Immediate Action ☐ Intermediate action ☐ Long time action

☐ Cleaning, uncover

SE DEBE VERIFICAR POSIBLE DESCARGA SANITARIA EN EL SISTEMA PLUVIA
DE SER ASÍ SE DEBE REALIZAR TRABAJOS PARA SEPARAR SISTEMAS.

Att. 2c-4 – Garcilaso de la Vega and Consuelo Matos R16d-S005a

CSA Group

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Date: 08/OCT/09	Outfall ID: S-005A
Brigade No: 4	Body of Water: QBDA. SAN ANTON
Grid (Quadricula): R14d	Region: 3
Barrio: SABANA LLANA	Sector: EL COMANDANTE
Street: C. GARCILASO DE LA VEGA INT. CONSUELO MATOS	GPS Unit:
	GPS LMK #:
	Photo #s: 5087, 5088

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☒ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes:

¿Esta estructura esta en los planos del Municipio de San Juan? ☒ Si ☐ No

SECTION 2: OUTFALL DESCRIPTION

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN)	SUBMERG
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other:	☒ Circular ☐ Elliptical ☐ Box ☐ Other:	☒ Single ☐ Double ☐ Triple ☐ Other:	Diameter/Dimensions: 36	In Water: ☒ No ☐ Partial ☐ Fully With Sediment: ☒ No ☐ Partial ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other:	☐ Trapezoid ☐ Parabolic ☐ Other:		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☒ Yes ☐ No	*If No, Skip to Section 4*			
Flow Description (If present)	☒ Trickle ☐ Moderate ☐ Substantial				

IMG_5087

IMG_5088

Att. 2c-4 – Garcilaso de la Vega and Consuelo Matos R16d-S005a

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☒ Yes ☐ No *(If No, Skip to Section 4)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☒	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☒ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indicatious of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Recommendations:

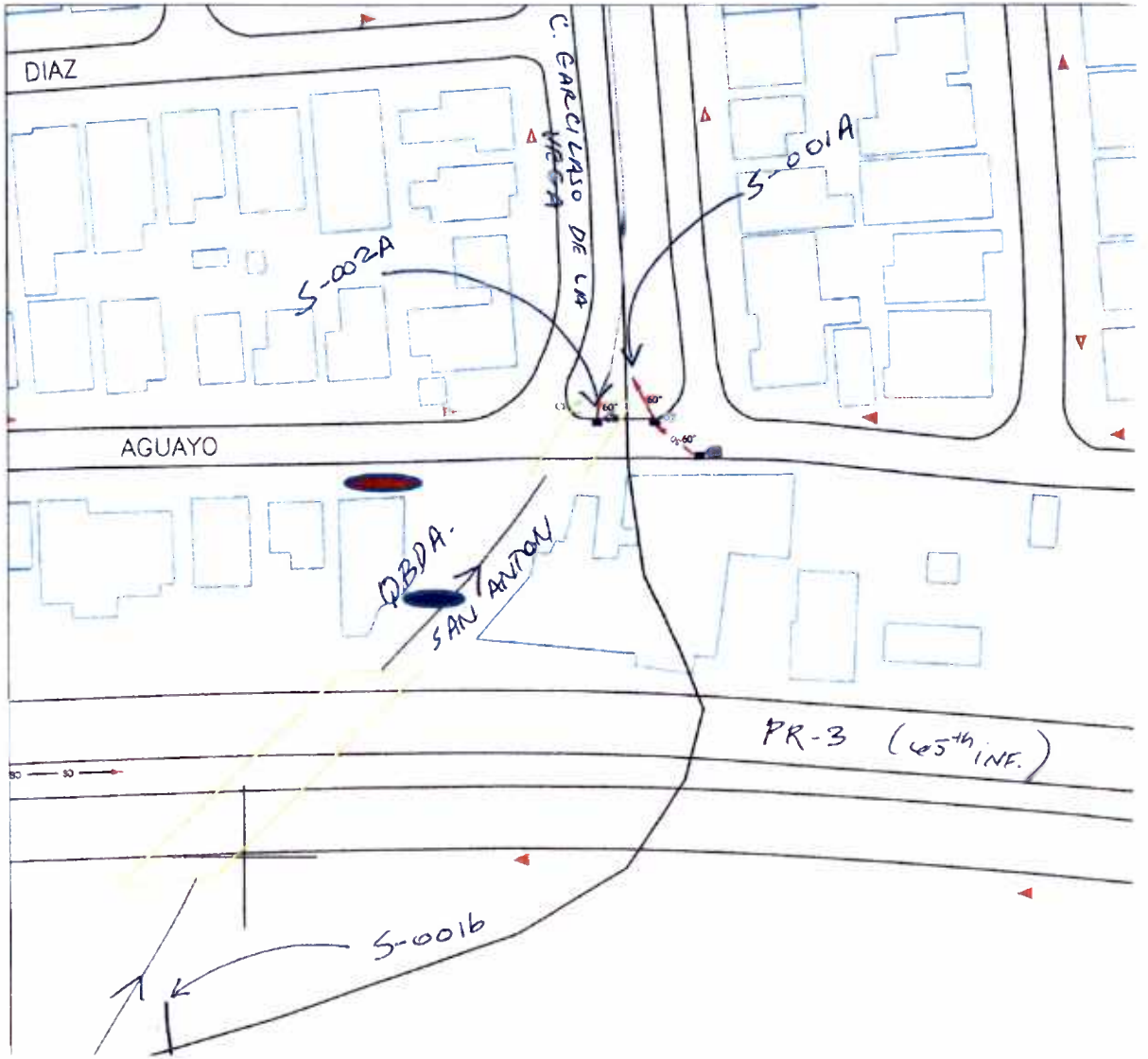
☐ Immediate Action ☐ Intermediate action ☐ Long time action

☐ Cleaning, uncover

SE DEBE VERIFICAR POSIBLES DESCARGAS SANITARIA AL SISTEMA PLUVIAL DE SER ASÍ SE DEBE REALIZAR TRABAJOS PARA SEPARAR LOS SISTEMAS.

2d-1 MSJ
MS4 Map
Nicolas
Aguayo

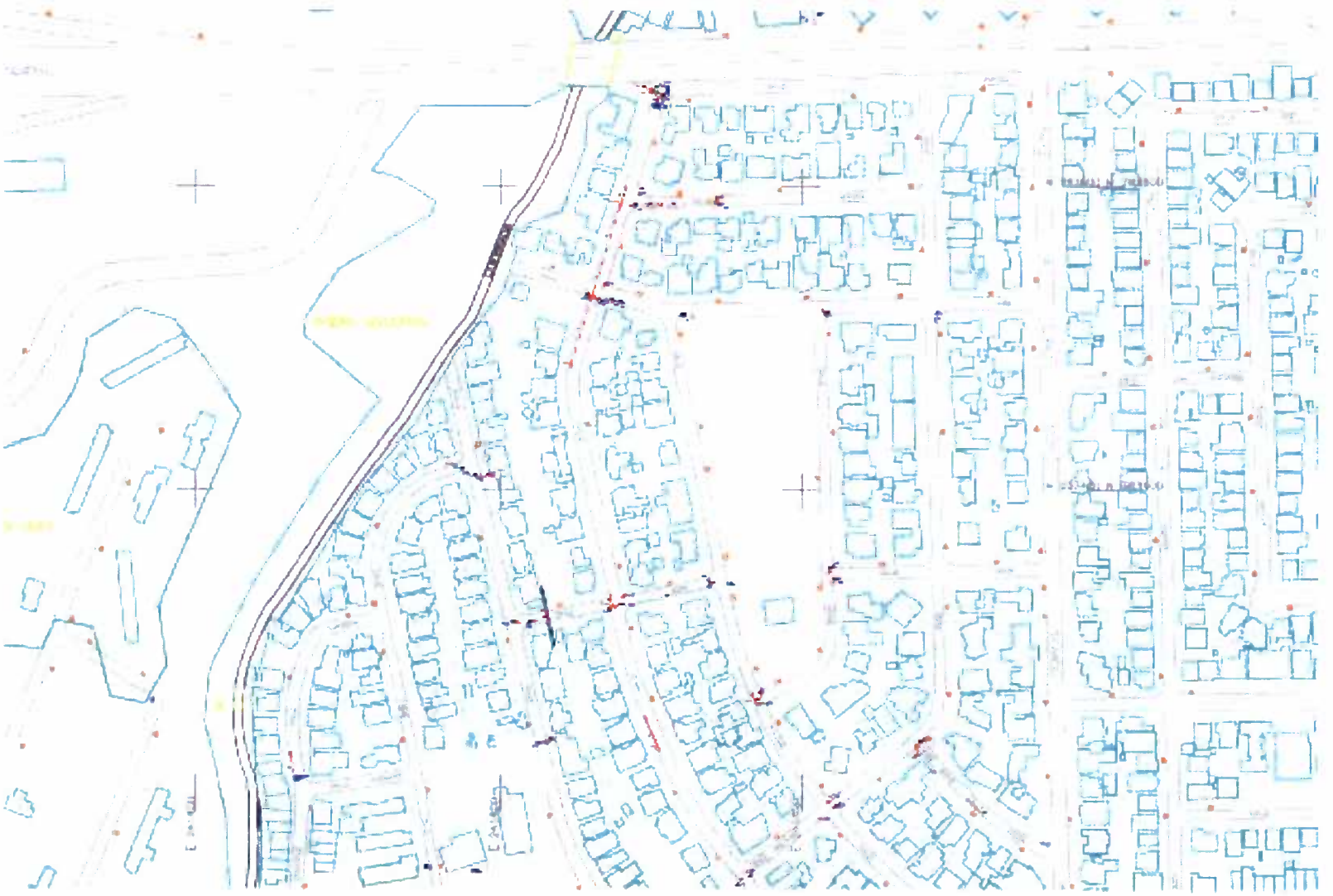
2d-2, - R18b – S001a – 2009 CSA Report Sabana Llana Comandante – Q. San Anton
S001a – Nicolas Aguayo – Note S-001A is not in San Juan, but within Carolina



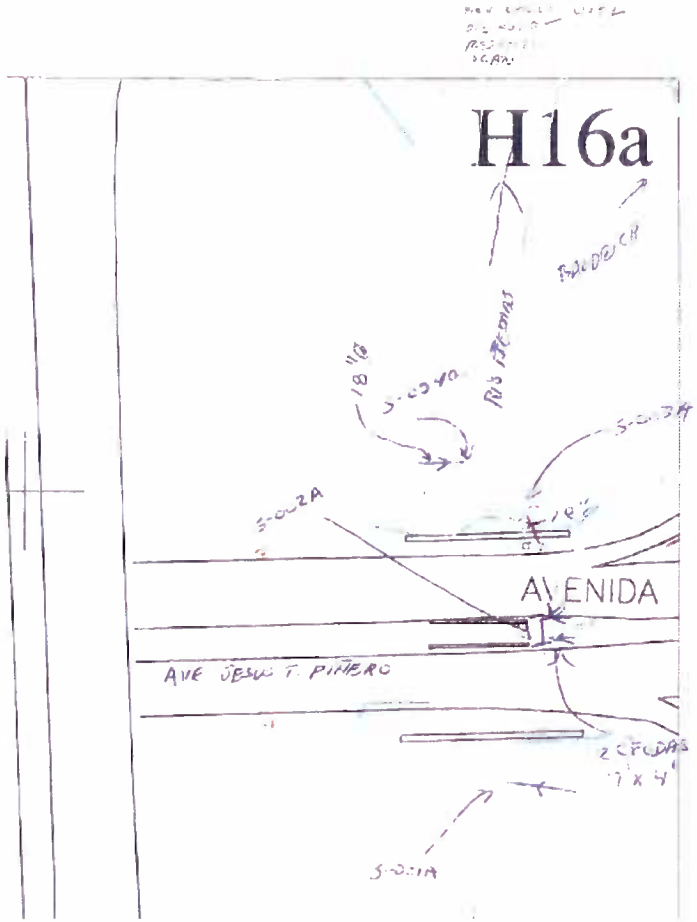
Sanitary Disch. on Sidewalk in front of 1232, Nicolas Aguayo (See paragraph B.7 of Recon report)

Discharge pipe with dry weather flow to Queb. San Anton from behind house at 1232 Nicolas Aguayo

Attachment 3 - MSJ MS4 Map Calle Ariel, Lira, Lince/ Quebrada Juan Mendez



Att. 4a-1 H16a-002a – Jesus T. Pinero (PR-17) and Rio Piedras River (Under Bridge)



PUNTOS de DESCARGAS

REGION No 2
BRIGADA No 4
BARRIO Hato Rey
SECTOR University Gardens

CSA Architects and Engineers, LLP

Semana: del 31 Agosto al 4 de sept 09

QUADRICULA	LOCALIZACION ESPECIFICA	No. DE ESTRUCTURA	TAPADA Y/O SUCIA	LIMPIA	TAPA SELLADA	COMBINADA	EXISTE Y NO ESTA EN PLANO MSJ	ESTA EN PLANO MSJ Y NO EXISTE	COMENTARIOS
H16a	Ave. Piñeiro (Bajo Puente)	H16aS-001A		1			x		
H16a	Ave. Piñeiro (Bajo Puente)	H16aS-002A	1			1	x		

TOTAL TAPADAS Y/O SUCIAS	1
TOTAL LIMPIAS	1
TOTAL SELLADAS	0
TOTAL COMBINADAS	1
% TAPADAS	33
% LIMPIAS	33
% SELLADAS	0
% COMBINADAS	33

The Data Sheet was not available for outfalls 001a and 002a.

Att. 4a-2 H16a-002a – Jesus T. Pinero (PR-17) and Rio Piedras River (Under Bridge)


CIMG6117


CIMG6114


CIMG6109


CIMG6119


CIMG6115


CIMG6110

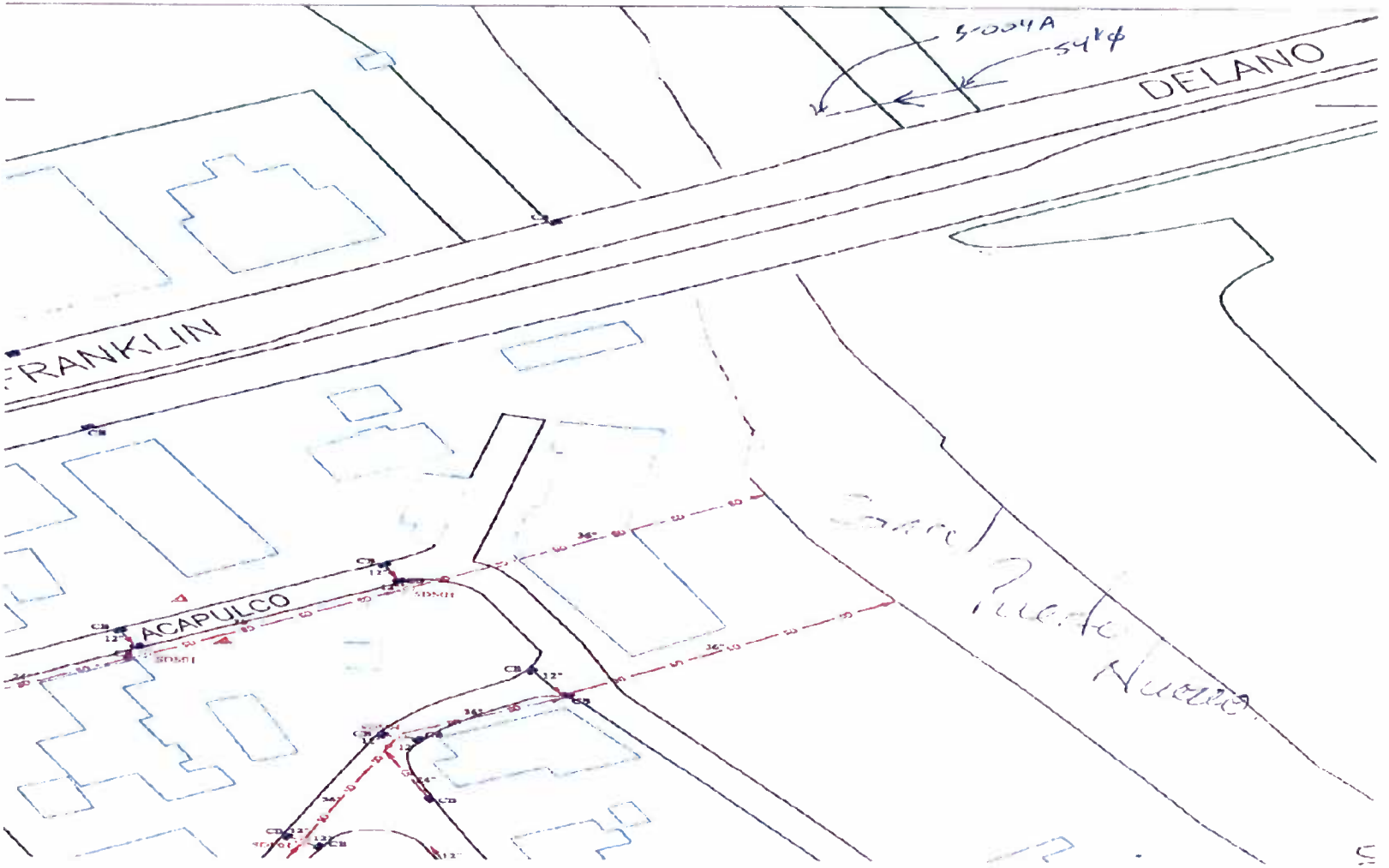

CIMG6120


CIMG6116


CIMG6113

See Photos 6113 and 6114

Attachment 5a-1 - Puerto Nuevo River and Franklin Delano Roosevelt Ave.
PR-23 – Puerto Nuevo Norte - Carpeta 11



Attachment 5a-2 - Puerto Nuevo River and Franklin Delano Roosevelt Ave. (PR-23) G14a-S-004A– Puerto Nuevo Norte - Carpeta 11

CSA Group

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Date: 01/OCT/09	Outfall ID: S-004A
Brigade No: 4	Body of Water: CANAL PUERTO NUEVO
Grid (Cuadricula): G14a	Region: 2
Barrio: PUERTO NUEVO / Sector: PUERTO NUEVO NORTE	GPS Unit: / GPS LMK #:
Street: BAJO PUENTE AVE. ROOSELVET	Photo #s: 6598, 6601, 6602, 6603

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☒ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes:

¿Esta estructura esta en los planos del Municipio de San Juan? ☐ Si ☒ No

SECTION 2: OUTFALL DESCRIPTION

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Elliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 54	In Water: ☒ No ☐ Partially ☐ Fully; With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☒ Yes ☐ No *If No, Skip to Section 4*				
Flow Description (If present)	☒ Trickle ☐ Moderate ☐ Substantial				

CIMG6598

CIMG6601

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? [X] Yes [ ] No *(If No, Skip to Section 4)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	[X]	[X] Sewage [ ] Rancid/sour [ ] Petroleum/gas [ ] Sulfide [ ] Other:	[ ] 1 - Faint	[ ] 2 - Easily detected	[ ] 3 - Noticeable from a distance
Color	[X]	[ ] Clear [ ] Brown [ ] Gray [ ] Yellow [X] Green [ ] Orange [ ] Red [ ] Other:	[ ] 1 - Faint colors in sample bottle	[ ] 2 - Clearly visible in sample bottle	[ ] 3 - Clearly visible in outfall flow
Turbidity	[ ]	See severity	[ ] 1 - Slight cloudiness	[ ] 2 - Cloudy	[ ] 3 - Opaque
Floatables -Does Not Include Trash	[ ]	[ ] Sewage (Toilet Paper, etc.) [ ] Suds [ ] Petroleum (oil sheen) [ ] Other:	[ ] 1 - Few/slight; origin not obvious	[ ] 2 - Some; indications of origin (e.g., possible suds or oil sheen)	[ ] 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? [ ] Yes [X] No

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	[ ]	[ ] Spalling, Cracking or Chipping [ ] Peeling Paint [ ] Corrosion	
Deposits/Stains	[ ]	[ ] Oily [ ] Flow Line [ ] Paint [ ] Other:	
Abnormal Vegetation	[ ]	[ ] Excessive [ ] Inhibited	
Poor pool quality	[ ]	[ ] Odors [ ] Colors [ ] Floatables [ ] Oil Sheen [ ] Suds [ ] Excessive Algae [ ] Other:	
Pipe benthic growth	[ ]	[ ] Brown [ ] Orange [ ] Green [ ] Other:	

Recommendations:

[ ] Immediate Action [ ] Intermediate action [ ] Long Term action

[ ] Cleaning, answer:

SE DEBE INVESTIGAR POSIBLES DESCARGAS SANITARIAS A ESTE SISTEMA PLUVIAL

DE SER ASÍ SE DEBE REALIZAR PROYECTO PARA SEPARAR SISTEMAS

Attachment 5a-2 - Puerto Nuevo River and Franklin Delano Roosevelt Ave. (PR-23) G14a-S-004A– Puerto Nuevo Norte - Carpeta 11

Attachment 6a-1 - F17d S-001A, Caparra Heights, Reparto Metropolitano, Behind 1150/1166 Ave. Americo Miranda- MSJ – MS4 Map

Approximate discharge location behind Kayak Shop

Attachment 6a-2 - F17d S-001A, Caparra Hieghts, Reparto Metropolitano, Behind 1150/1166 Ave. Americo Miranda

CSA Group

Outfall Reconnaissance Inventory/ Sample Collection Field Sheet

Section 1: Background Data

Date: 10/SEPT/09	Outfall ID: S-001A
Brigade No: 4	Body of Water: QUEBRADA PEÑA ANA
Grid (Cuadricula): F17d Region: 4	
Barrio: CAPARRA HEIGHTS Sector: REPARTO METROPOLITANO	GPS Unit: GPS LMK #:
Street: CALLE AMERICO MIRANDA	Photo #s: 5674, 5675, 5676, 5677

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☒ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes:

¿Esta estructura esta en los planos del Municipio de San Juan? ☐ Si ☒ No

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: ____	☒ Single ☐ Double ☐ Triple ☐ Other: ____	Diameter/Dimensions: 48	In Water: ☒ No ☐ Partially ☐ Fully With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: ____	☐ Trapezoid ☐ Parabolic ☐ Other: ____		Depth: ____ Top Width: ____ Bottom Width: ____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☒ Yes ☐ No *If No, Skip to Section 4*				
Flow Description (If present)	☒ Trickle ☐ Moderate ☐ Substantial				

Attachment 6a-3- F17d S-001A, Caparra Hieghts, Reparto Metropolitano, Behind 1150/1166 Ave. Americo Miranda

CSA Group

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☒ Yes ☐ No *(If No, Skip to Section 4)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☒	☒ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☒	☐ Clear ☐ Brown ☒ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☒	See severity X	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☒	☒ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Recommendations:

☐ Immediate Action ☐ Intermediate action ☒ Long time action

☐ Cleaning, uncover

NUESTRA SEÑALES DE DESCARGAS SANITARIA DE SER ASÍ REQUIERE TRABAJOS PARA SEPARAR LOS SISTEMAS REQUIERE REPARACIONES ESTRUCTURALES EN LA DESCARGA.

Attachment 6a-4- F17d S-001A, Caparra Heights, Reparto Metropolitano, Behind 1150/1166 Ave. Americo Miranda

CIMG5676

CIMG5675

CIMG5677

[Explanation of the Preliminary Monthly Climate Data (F6) Product]

These data are preliminary and have not undergone final quality control by the National Climatic Data Center (NCDC). Therefore, these data are subject to revision. Final and certified climate data can be accessed at the NCDC - http://www.ncdc.noaa.gov.

WFO Monthly/Daily Climate Data

000
CXUS52 TJSJ 012039
CF6JSJ
PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6)

STATION: SAN JUAN/P.R.
MONTH: APRIL
YEAR: 2012
LATITUDE: 18 25 N
LONGITUDE: 66 0 W

TEMPERATURE IN F:							:PCPN:	SNOW:		WIND				:SUNSHINE:		SKY		:PK WND	
1	2	3	4	5	6A	6B	7	8	9	10	11	12	13	14	15	16	17	18	
									12Z	AVG	MX	2MIN							
DY	MAX	MIN	AVG	DEP	HDD	CDD	WTR	SNW	DPTH	SPD	SPD	DIR	MIN	PSBL	S-S	WX		SPD	DR
1	89	72	81	1	0	16	0.00	0.0	0	4.6	13	190	M	M	2			21	160
2	90	74	82	2	0	17	0.00	0.0	0	4.5	13	140	M	M	3	8		20	140
3	86	76	81	1	0	16	0.00	0.0	0	4.4	12	10	M	M	5			17	10
4	85	75	80	0	0	15	0.00	0.0	0	7.9	17	70	M	M	5	8		21	50
5	88	76	82	2	0	17	T	0.0	0	8.7	18	60	M	M	5			28	90
6	90	75	83	3	0	18	0.00	0.0	0	5.2	18	70	M	M	4			24	110
7	85	75	80	0	0	15	0.15	0.0	0	4.7	17	70	M	M	4			20	70
8	85	75	80	0	0	15	T	0.0	0	5.9	15	60	M	M	4			20	20
9	82	74	78	-2	0	13	0.34	0.0	0	3.5	22	60	M	M	6	138		25	50
10	85	73	79	-1	0	14	1.70	0.0	0	4.3	22	90	M	M	6	1238		26	100
11	89	73	81	1	0	16	0.00	0.0	0	4.6	20	80	M	M	3			23	80
12	92	75	84	4	0	19	0.34	0.0	0	2.5	16	240	M	M	4			22	240
13	87	74	81	1	0	16	0.57	0.0	0	3.6	14	10	M	M	5	18		21	360
14	81	74	78	-2	0	13	0.68	0.0	0	9.3	23	30	M	M	7	18		31	30
15	82	74	78	-2	0	13	0.02	0.0	0	15.8	22	20	M	M	7			30	20
16	83	75	79	-1	0	14	T	0.0	0	14.5	22	70	M	M	5			30	60
17	83	73	78	-2	0	13	T	0.0	0	13.4	21	50	M	M	4			26	70
18	82	72	77	-3	0	12	0.00	0.0	0	6.9	14	10	M	M	3			21	10
19	82	71	77	-3	0	12	0.00	0.0	0	5.9	16	60	M	M	3			21	40
20	84	72	78	-2	0	13	0.00	0.0	0	8.0	20	60	M	M	4			25	60
21	86	75	81	0	0	16	T	0.0	0	8.6	24	60	M	M	4			31	70
22	89	76	83	2	0	18	0.69	0.0	0	4.5	14	140	M	M	4	1		20	150
23	91	78	85	4	0	20	T	0.0	0	6.6	15	150	M	M	4			22	140
24	92	79	86	5	0	21	0.00	0.0	0	6.6	17	140	M	M	3			23	140
25	87	78	83	2	0	18	0.35	0.0	0	7.2	18	80	M	M	5	8		23	90
26	88	77	83	2	0	18	T	0.0	0	11.9	23	80	M	M	4			26	60
27	88	76	82	1	0	17	0.08	0.0	0	10.0	22	60	M	M	5			25	70
28	87	76	82	1	0	17	0.01	0.0	0	11.8	23	70	M	M	4			31	40
29	87	75	81	0	0	16	0.09	0.0	0	9.5	25	90	M	M	4			29	90
30	85	75	80	-1	0	15	0.28	0.0	0	7.6	20	110	M	M	5	1		24	100

```
==============================================================================
SM 2590 2243          0 473  5.30      0.0 222.5          M       131
==============================================================================
AV 86.3 74.8                                  7.4 FASTST   M    M   4     MAX(MPH)
                                  MISC ----->  # 25  90                # 31   30
==============================================================================
NOTES:
# LAST OF SEVERAL OCCURRENCES

COLUMN 17 PEAK WIND IN M.P.H.

PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6) , PAGE 2

                                                STATION:  SAN JUAN/P.R.
                                                MONTH:    APRIL
                                                YEAR:     2012
                                                LATITUDE:   18 25 N
                                                LONGITUDE:  66  0 W

[TEMPERATURE DATA]       [PRECIPITATION DATA]       SYMBOLS USED IN COLUMN 16

AVERAGE MONTHLY: 80.6    TOTAL FOR MONTH:    5.30    1 = FOG OR MIST
DPTR FM NORMAL:   0.2    DPTR FM NORMAL:     0.62    2 = FOG REDUCING VISIBILITY
HIGHEST:     92 ON 24,12 GRTST 24HR  1.79 ON  9-10       TO 1/4 MILE OR LESS
LOWEST:      71 ON 19                                3 = THUNDER
                         SNOW, ICE PELLETS, HAIL     4 = ICE PELLETS
                         TOTAL MONTH:    0.0 INCH    5 = HAIL
                         GRTST 24HR      0.0         6 = FREEZING RAIN OR DRIZZLE
                         GRTST DEPTH:    0           7 = DUSTSTORM OR SANDSTORM:
                                                         VSBY 1/2 MILE OR LESS
                                                     8 = SMOKE OR HAZE
[NO. OF DAYS WITH]       [WEATHER - DAYS WITH]       9 = BLOWING SNOW
                                                     X = TORNADO
MAX 32 OR BELOW:    0    0.01 INCH OR MORE:  13
MAX 90 OR ABOVE:    5    0.10 INCH OR MORE:   9
MIN 32 OR BELOW:    0    0.50 INCH OR MORE:   4
MIN  0 OR BELOW:    0    1.00 INCH OR MORE:   1

[HDD (BASE 65) ]
TOTAL THIS MO.      0    CLEAR  (SCALE 0-3)   3
DPTR FM NORMAL      0    PTCLDY (SCALE 4-7)  27
TOTAL FM JUL 1      0    CLOUDY (SCALE 8-10)  0
DPTR FM NORMAL      0

[CDD (BASE 65) ]
TOTAL THIS MO.    473
DPTR FM NORMAL     14    [PRESSURE DATA]
TOTAL FM JAN 1   1664    HIGHEST SLP 30.11 ON 15
DPTR FM NORMAL     23    LOWEST  SLP 29.85 ON  2

[REMARKS]
#FINAL-04-12#
```